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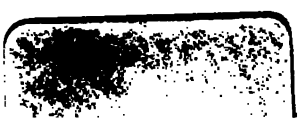

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OF

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OR FORENSIC PSYCHIATRY.

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BY S. V. CLEVENGER, M. D.

ATTENDING PHYSICIAN ALEXIAN BROTHERS' HOSPITAL, CONSULTING PHYSICIAN MICHAEL REESE HOSPITAL, CHICAGO; ASSOCIATE EDITOR OF THE ALIENIST AND NEUROLOGIST. FORMERLY MEDICAL SUPERINTENDENT OF THE ILLINOIS EASTERN HOSPITAL FOR THE INSANE, PATHOLOGIST OF THE COUNTY INSANE ASYLUM, CHICAGO; PROFESSOR OF ANATOMY, ART INSTITUTE, CHICAGO; LECTURER ON PHYSICS, CHICAGO COLLEGE OF PHARMACY; AUTHOR OF COMPARATIVE PHYSIOLOGY AND PSYCHOLOGY, SPINAL CONCUSSION, ETC.

WITH AN EXHAUSTIVE PRESENTATION OF THE JUDICIAL DECISIONS UPON THE SUBJECT.

BY F. H. BOWLBY,

COUNSELOR AT LAW, OF THE PUBLISHERS' EDITORIAL STAFF.

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MEDICAL

JURISPRUDENCE OF INSANITY.

CHAPTER XII.

ALCOHOLISM.

Ethyl alcohol, spirit of wine, is commercially assumed to be the base of intoxicating drinks, and the purest of these is capable of working great havoc when abused; but on account of the demand for cheap liquor in vast quantities, what is known to chemists as the more poisonous amyl alcohol (potato spirit or fusel oil) is substituted for portions of the less harmful ethyl or vinic alcohol. The aroma, or bouquet, of liquors is largely due to certain ethers of the more poisonous amyl and butyl alcohols, notably the acetic and valeric. All too often, by the time it reaches the average consumer, liquor contains, in addition to the alcohol, diluents to increase bulk, and articles to give it false color, odor, and taste.

In the English licensing act of 1872[1] there is a schedule of substances called "deleterious ingredients," found to have been used in adulterating intoxicating liquors. They are cocculus Indicus, common salt, copperas, opium, Indian hemp, strychnine, tobacco, darnel seed, logwood, salts of zinc or lead, and alum; and there are also added correctives of acidity, such as litharge, lime, soda, potash; astringents like catechu, oak-bark, and sloe leaves; earths for decolorizing; sweetening agents, and ethers for flavoring. Most of these articles are unwholesome, to say the least, and tend to debilitate and otherwise create depraved bodily states.

[1] 35 & 36 Vict. chap. 94.

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Referring to the use of alcoholic liquors an investigator[1] says: "The laboring man who can hardly procure bread and meat enough to preserve the balance between the formation and decay of his tissues finds here an agent which, within the limits of health, enables him to dispense with a certain quantity of food, and yet keeps up the weight and strength of his body." Unfortunately laborers may overindulge, and thus further curtail their bread and meat diet by inability to purchase it. But no amount of cheap whisky can be safely substituted for food proper; and the habit of drink, with all its terrible consequences, becomes fastened upon a great many moderate drinkers in all grades of the civilized.

Savages are very susceptible to the bad effects of liquor, and, according to historical accounts, our not so very remote ancestry which had emerged from primitive social states seems to have reveled in drink. In earlier centuries, hard drinking was the rule among the majority, and there has arisen a large class who can and do indulge in moderation. This ability has often been the result of peculiar transmission of toleration, which appears as a consequence of the ancestral addiction.

Measles proved to be anything but a benign disease when it appeared among the Fijians. They died from it by hundreds, as formerly Europeans were slaughtered by malaria and smallpox epidemics. Aside from the preventive effects of quinine and vaccination, a certain immunity from these diseases has been increasing among successive generations. Certainly measles is not so formidable among civilized as it is among savage races, and this may justifiably be assumed as an acquired toleration. The first onslaught of epidemics carries off the weakest, the most susceptible; each succeeding visitation lessens the number of victims, as insusceptibility has been increased, partly by the previous death of the less resistant, partly by the transmission of traits by the more resistant survivors to their children, among whom the next appearance of the epidemic selects the less protected, and so on in successive selections until there appears a large number, if not finally a majority, who are not attacked by the disease which was so fatal to many of their remote ancestry. So, the descendants of

[1] Hammond, Physiological Memoirs, 56.

hard drinkers may be moderate drinkers, and no others can safely be moderate drinkers, for the same reason that measles killed fewer in later centuries, because of natural selection and an increased conservative tendency to create immunity from disease. What nature does for individuals in protecting them against the recurrence of certain disorders, it may do to an unascertained degree for the race. Syphilis has been modified within five centuries to such an extent that susceptibility is not so great, and yet this disease has recently carried off whole tribes of Indians. The survivors of the once extensive Arapaho nation are the small remnant they are because whisky and syphilis have exterminated the less resistant among them.

Vaccinia is to smallpox what the ability to drink moderately is to hard drinking; but nature confers the toleration and determines who can drink moderately. For the multitude there is safety only in abstinence. Sometimes inebriety appears in succeeding generations, but oftener it does not appear. The daughters of inebriate fathers are as temperate as the rest of womankind, and the tendency is for healthier heredity to intervene, or toleration to be established.

The drink habit is in all cases a disease or the result of a disease. The largest percentage of drinkers could not be styled "alcoholics" though they drink alcohol. As a medicine it sometimes antagonizes disease, particularly such as are due to the organic poisons of microbes. It deadens sorrow, it produces joy; it opposes fatigue and waste of body. As eloquently stated by an eminent writer: "If alcohol nerves the arm of the murderer, it also nerves the heart of the fever patient. If it is crime it is also sacrament; if it is poison it is also medicine; if it kills it also saves; if it causes disease it also cures; if it is a law-breaker it also makes the laws; if it is an outcast it is also clothed in purple and fine linen. Alcohol carried in a little tin pail by a forlorn and ragged child is degradation. Alcohol in a bottle covered by the valued cobwebs of age, carried by the butler from the dark cellar to the table of the millionaire, is aristocracy."

The drink habit is fostered by example; habit is contagious and transferred by imitation. The appetite becomes an invariable accompaniment of the habit. Just as meat and vegetables are craved by the normally hungry, so does the intoxicant become a

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necessary indulgence of the drunkard; and the pangs of privation are as great in the one case as in the other. Place meat within the reach of the starving man, and whisky near the drunkard who is suffering for the want of it, and what would either do if forbidden to partake? The presence of the poison, to which the organs of the inebriate have grown accustomed, is absolutely necessary to the usual life of such organs until a revolution can be effected that will enable him to live upon ordinary food,—a revolution akin to that required to convert a carnivore into an herbivore, a wolf into a sheep, in appetite.

When habitual drunkards get enough liquor they are satisfied for the time being, as others are between meals. Isaac Ray[1] extracts from Hoffbauer and Macnish[2] a good description of the mental effects of intoxication, and in a condensation of the classical descriptions of these writers later information is interpolated:

The first effect of alcoholic liquors ordinarily is to create self-satisfaction and serenity of mind. The intellectual and physical powers are increased in vigor and activity, thoughts flow with more facility and accuracy, and the drinker becomes well pleased with everything and everybody. He enjoys exhilarated spirits and a sense of warmth and gaiety, and imagination is pleasurably intensified. The sight and hearing are very slightly affected; a low humming sound is heard in the pauses of conversation, and objects are enveloped in a slight mist. Thus far there is no appearance of drunkenness; but soon the torrent of ideas grows rapid and violent; the man makes happy sallies and pours forth thoughts with a richness of conception and expression unknown in his sober hours; he feels the ecstacy of getting drunk. As yet the brain is in tolerable order, but with added potations, or with the later effects of those already taken, complicated transactions are not so readily narrated, because the thoughts succeed one another too rapidly for arrangement, as, to a greater degree, in a certain stage of mania. This is often the first well-marked symptom of intoxication. If nonsense is indulged in, the drunken man is aware that it is such. His voice is louder because he

[1] Medical Jurisprudence of Insanity, 1838.

[2] Anatomy of Drunkenness.

hears less acutely. His imagination grows dreamlike, and he is conscious of giddiness and oppressed feelings in the head. His perception of color, form, distance, and number becomes utterly confused; he may confound one person with another; objects are multiplied three or four fold; and his inaccurate judgment of distances may cause him to drop and break a glass that he endeavored to place on the table. He may then attempt to vent an old grudge if the object of his dislike appears, or, imagining that he has been offended, may seek resentment in abusive words or blows. He may fancy that he has given unintentional offense, and become absurdly apologetic. His ideas are disconnected, but their vivacity and rapidity give his anger unreasonableness, and unless diverted there is no predicting what he may say or what mischief he may do. Soon he stammers and his voice gets thick; his legs falter; he may fall and pass into a profound sleep, during which he is said to be dead drunk. This is the ordinary course of acute alcoholism, though it may vary with the temperament, circumstances, or habits of the individual. It may be summarized as muscular inco-ordination, mental disturbance, and finally narcosis. In this latter stage the face is flushed, cyanosed; the pulse is full; respirations are deep, but rarely stertorous; the pupils are usually dilated, though in some cases they are contracted. The temperature is frequently subnormal. Unconsciousness is not so deep but that the patient may be aroused to some extent, and in reply to questions he mutters incoherently. Muscular twitchings may occur, but there are rarely convulsions. The breath has a heavy alcoholic odor. Apoplexy resembles this condition, but the coma of apoplexy is deeper, there is stertorous breathing and evidence of hemiplegia in the flaccidity of a leg and arm. Drunkards may be stricken with apoplexy, and it is best to extend the benefit of the doubt when the doubt arises. In the case of arrests a recent writer says: "It is better that a drunkard should be sobered up in bed than that an apoplectic should be allowed to expire in a jail cell."

In the beginning of the acute stage of intoxication the drinker may be in the complete possession of his senses, but the exhilaration is not favorable to reflection, and often there is great irritability. Anger is not frequent at this time, and there is likely to be considerable patience; but some previous circumstance, or rail-

lery, may cause a change from dispute to a passionate outbreak. There is greater self-control even then than later. In Hoffbauer's second degree of acute intoxication the senses are enfeebled and the drunkard is without any memory or judgment. He acts as if he lived only for the present, with no idea of the consequences of his actions or their relations to one another. The past has gone from his mind, and he cannot be influenced by considerations which he no longer remembers. He conducts himself as if no control over his actions were necessary. The slightest provocation is sufficient to awaken the most unbounded rage. He is therefore not unlike the maniac, and can be responsible for his actions only so far as he is for his drunkenness. In the last degree he is more dangerous to himself than to others, for his senses are so enfeebled that he is no longer conscious of his external relations.

In many such cases of simple alcoholism there is a rapidly afforded resemblance to most of the stages of paretic dementia: the excitement, grand delusions, staggering, stammering, the same slurring of certain sounds,—as the letter "r," in "truly rural," which, as is well known, becomes "tooral looral," on an attempt to pronounce words; then follows the stupidity that may be compared to the final stage of secondary dementia, into which paretic dements pass. But in alcoholism, temporary recovery results, and the analogy ceases at that point.

Long-continued and excessive use of alcoholic liquor, overindulgence for many years, blunts the original delicacy of the moral perceptions and lessens their acuteness. As a rule domestic life is vitiated, the finer sentiments are deadened, the mind is sluggish and incapable of long-continued efforts which once were easy, and even the minimum of work cannot be performed without resort to the artificial stimulus.

The hard drinker experiences multitudes of deranged sensations; pain, cramps, numbness, aches, empty gnawing feeling in his abdomen, stomach burnings, crawlings, creepings, tinglings, twitchings; and the material causes underlying these deranged sensations are circulatory disturbances. If he is educated or preserves enough mind, he accounts for the aberrant feelings; he realizes that his system is out of order; but let ignorance or its equivalent, a mental impairment, accompany these, and forth-

with he will assign erroneous causes for their origin, such as magnetism, electricity, hypnotism, diabolical or other persecution. In old times, witchcraft and the devil were blamed; but as people grew more familiar with scientific workings, electricity, etc., were substituted. This is true of all insane delusions and hallucinations.

Drinking becomes indispensable, and many are the noted orators and writers who, while tending to sottishness, are converted for a time into the animated, sociable, and efficient men of better days through the inspiration of drink. But the sustenance is treacherous; usually larger and still larger quantities are required, until, sooner or later, the exhilaration is of too short duration to aid in the accomplishment of anything, and the lethal effects finally predominate.

Chronic alcoholism in its most obvious features is a condition of functional poisoning, manifested in its production of lethargy, stupidity, and acute narcosis. Less noticeably, but gradually, it operates as a tissue poison, affecting parenchymatous elements, particularly epithelial and nerve structure, and to a greater or lesser degree all the cellular components of the body. A slow degeneration is produced until the blood vessels are involved in thickening and fibroid changes. Oxidation of tissues is checked, since alcohol is consumed in place of the fat, leading to fatty changes which may advance to general steatosis.

Disturbance of the functions of the nervous system is common. Often there is unsteadiness of the muscles on an attempt to perform any motion; coarse or fine tremors, or both, are observable in the hands and tongue, particularly before the morning drink has been taken. The mental processes are dulled, and business cannot usually be attempted without stimulation. Sleeplessness, irritability, forgetfulness, and change in moral character increase gradually. Wives are the commonest and worst victims of drunkards. By their mistaken policy of nagging, in attempts at "reform," women rouse insane resentment. They cannot understand the irresponsibility, the disease doctrine, involved; nor are they to blame where there is such prevalent ignorance, not only concerning such matters, but all others regarding health or the most rudimentary principles of physiology. Generally the drunkard is himself lost in amazement at his own doings,

upon recovery from a debauch. It appears to him as though he had been taken possession of by some malignant power outside of himself; his wife can tell him nothing about the disgusting features of the failing which he does not already know; nor can she make him despise himself and his weakness more than he usually does from self-suggested remorse. Feminine abuse but intensifies irritability and furnishes excuse for neglect of home, if not worse retaliation.

In some instances the alcoholic habit engenders various grades of mendacity, sometimes to an extent that would unfit the victims to testify in court. This may be due to the inability of the inebriate to distinguish between subjective impressions and events that have really occurred. When veracity is in question the mendacity should be elicited as a matter of fact, and not as necessarily existing in all cases of alcoholism. The use of opium with alcohol raises the probability of untruthfulness.

Dr. Magnus Huss, of Stockholm, in 1849 first prominently directed the attention of physicians to the subject of alcoholism, a term he was the first to use. He described the paralytic and anæsthetic forms of chronic alcoholism, also later referred to by Hammond,[1] Ross,[2] and other neurologists. Gowers,[3] under the heading "Multiple Neuritis," gives still more recent details of these distressing consequences of drinking alcoholics.

Magnan,[4] Virenque, Hammond, and others observed an occasional loss of sensation involving only one lateral half of the body, as in hysteria. The other special senses are generally implicated. Thus the patient loses the sight of one eye; cannot hear with one ear, can taste with only half of the tongue, and smells with but one nostril.

Gowers[5] states that alcoholic polyneuritis is most frequently met with and predominates over all other forms of nerve inflammation. It results chiefly from the stronger forms of alcoholic drinks, and especially from spirit drinking. It is more common

[1] Diseases of the Nervous System, 1881.

[2] Diseases of the Nervous System, 1885.

[3] Diseases of the Nervous System, Vol. I., 110 *et seq.*, 1892.

[4] De L'Alcoolisme des diverses formes du Délire Alcoolique, et de leur traitement, 1874.

[5] Op. cit. 117.

among those who take small quantities frequently than among those who indulge in an occasional spree, probably because the total quantity consumed by the former is greater. It is far more frequent among women than among men; probably three times as frequent. Other causes often co-operate with alcohol in exciting polyneuritis, especially exposure to cold, and, in the poor, insufficient nourishment. The symptoms consist of motor weakness, sensory disturbance, and inco-ordination. The weakness involves first and chiefly the flexors of the ankle and extensors of the wrist and fingers in the forearm; the result is wrist-drop and foot-drop. Other muscles suffer in severe cases. The sensory symptoms are tinglings, pains, varying in place and degree, tenderness, and loss of cutaneous sensibility. The inco-ordination resembles that present in the slighter forms of locomotor ataxia.

Neuritis is most commonly found in chronic alcoholic autopsies. Catarrh of the stomach, with furred tongue, heavy breath, a feeling of epigastric distress or "sinking," impaired appetite, and constipation usually accompanies it.

The liver may undergo changes leading to various forms of cirrhosis. Sometimes moderate drinking may reveal a special liability to hepatic cirrhosis, while on the other hand hard drinking for thirty years may leave the liver nearly intact. Lancereaux suspected that liver cirrhosis might be connected with the salts of potassium found in the wine of commerce, and by mixing these salts with the food of dogs and rabbits he succeeded in determining in these animals the same lesion of the liver which is observed in the wine toper. The stomach and liver disorders of drunkards produce dilated veins of the cheeks and nose, causing suffusion of those parts, *acne rosacea*. The eyes are watery, the conjunctiva hyperæmic and often tinged with bile. Formad claims that the kidneys are hypertrophied without other change, as a rule, and Guy's Hospital reports verify this finding. Pitt mentions this as occurring in 43 per cent of hard drinkers, and where the typical granular kidney occurs it is indirectly caused by arterial changes.[1]

Recent English and American works upon alcoholism are by Norman Kerr and T. D. Crothers. Dr. J. E. Blaine lucidly dis-

[1] Osler, Practice of Medicine, 1001 (1892).

cussed the progress of functional and anatomical disorganization in drunkenness.[1]

The greatest variability in general manifestations can be found in different patients, amounting to idiosyncrasies in particular cases, and other patients are classifiable into groups of a greater or less number. And the organic changes seem to be erratic, but are according to the resistance of organs. As a forerunner of serious alteration in the spinal cord, neuritis is not a simple and harmless disorder.

Magnan has demonstrated an alcoholic paraplegia in which Buzzard found electrical degeneration reaction. Some cases end fatally, though Bramwell[2] considers it for the most part functional. Broadbent's description,[3] in which myalgic pains, hyperæsthesia and double wrist-drop is included, should be compared with the pathological changes found by Eichorst, of Zurich,[4] attending alcoholic neuritis, in cases of inco-ordination followed by paraplegia and wrist-drop, tenderness of muscles, anæsthesia, abolition of reflexes, and finally vesical and rectal paralysis. The pathological anatomy consisted in cord hemorrhages in the dorsal gray, thickened bloodvessels, degenerated and atrophied tibial and radial nerves, with axis cylinders destroyed; the peripheral extremities were worst diseased; connective tissue proliferations of endoneurium and perineurium and inflammatory changes in their vicinity. A muscular atrophy was secondary to the neuritis, the nerve sheath inflammation extended to the interstitial muscular tissue. Bramwell notes that myelitis and other forms of organic disease may be caused by alcoholic excess; hence the paralysis may be permanent and incurable.

The enfeeblement of judgment and will may finally end in dementia.

Post mortem does not show any characteristic changes in the nervous system invariable in all cases of chronic alcoholism,—a proof that resistance is greater in some than in others. Sometimes hemorrhagic pachymeningitis is observed, with thickening and opacity of the pia-arachnoid membranes and wasting of the

[1] Quarterly Journal of Inebriety, April, 1891, 136.
[2] Bramwell, Diseases of the Spinal Cord, 307 (1884).
[3] Medical Times and Gazette, Feb. 16, 1884.
[4] London Lancet, May 19, 1888.

convolutions; or there may be a chronic encephalo-meningitis, with membrane adhesions, but most of these pathological states are, in advanced cases of alcoholism, the more incorrigible sort. This is readily believed when we remember that many chronic drunkards have been reclaimed and restored to what they were before the habit was formed. The older the patient and the longer the addiction the greater the probability of finding organic changes in the brain and its envelopes and bloodvessels.

Alcoholic epilepsy was considered to be frequent by Echeverria,[1] but Gowers[2] regarded it as of rare occurrence, 13 in 1450 cases of epilepsy. In some, the first fit occurred during intoxication, and in a few the attacks recurred after each alcoholic excess.

Kirchoff[3] states that intense alcoholic poisoning in a chronic hard drinker, as well as in a moderate drinker, may give rise to a condition of profound disturbance of consciousness, which lasts long after the drunken fit, is associated with epileptic convulsions, and, on account of the development of hallucinations, may closely resemble epileptic states and equivalents. The resemblance is further increased by the rapid course of the symptoms, their rapid cessation, and the loss of memory of events occurring during this state. Individuals are attacked who were not previously epileptic, although epileptics who have become addicted to alcohol may also exhibit similar conditions. If this condition develops only once, it may be called a pathological drunkenness. These seizures are apt to return after every severe intoxication, and to such cases the term alcoholic epilepsy is best suited.

Post-alcoholic conditions are such as become evident during abstinence after the protracted use of liquor. If the shock of abstinence is rallied from, we can then determine how much is left of the patient. Destructive changes in the brain may be, to an extent, masked by drinking; that is, the behavior of the patient may be erroneously ascribed to the drinking, when in larger part it may be due to brain alterations produced by overindulgence. The extreme ground is taken that whatever the means of recovery from habitual drunkenness the health is never regained.

[1] Journal of Mental Science, January, 1881.
[2] Epilepsy and Chronic Convulsive Diseases, 24.
[3] Handbook of Insanity, 344.

Dr. Clum[1] observes that those who have been addicted to the excessive use of alcoholic beverages for a number of years may be restored to a state of sobriety, but they are generally left with an entail of chronic diseases which eventually ends their career. They die temperance men, but die as a result of disease contracted by the excessive use of liquor. The habit is abandoned and nature and remedies are given a chance to do their part toward reinstating the individual, but the vital organs have been injured beyond reparation.

This gloomy outlook for the "reformed" inebriate is true as to a large percentage of cases, but is far from being universal. Drunkenness is not the only consideration; the health previous to and during the addiction should be regarded, aside from, as well as with, the drinking habit and its extent; the age, associations, and conditions, such as exposure and immoral practices, as incidental or consequential matters, should be taken into consideration in ascertaining how far a breakdown is ascribable to drink or to its stoppage.

Heart weakness that had previously been overcome to some extent by stimulants, whether created by their use or not, often becomes apparent in post-alcoholic life. Syphilis is known to have been modified and somewhat checked by the alcoholic poison acting upon the syphilitic poison; and when this antagonism ceases the syphilis has become more virulent. Livers, kidneys, nerves, and brains that have been structurally degraded cannot be restored by mere change of habit; indeed paralytic states may become evident immediately upon abstinence from liquor, through the shock of readjustment to new vascular workings. For example, when alcoholic neuritis, with membrane thickening and beginning spinal cord myelitis, has been caused by alcoholism, the sudden change in the circulation caused by abstinence will inevitably render the physical consequences of such inflammatory and neoplastic states more apparent. Pressure symptoms, debility, and marked sensory and motor impairment are liable to occur, from monoplegia to complete paraplegia.

Tremens begins during the abstinence of drinkers; and temporary sobriety causes a dazed, bewildered mental state in the

[1] Quarterly Journal of Inebriety, October, 1891, 382.

hard drinker, due to circulatory changes in the brain. Even if the craving be destroyed and the will power to resist drinking imparted by any means, too often the inebriate finds himself so completely out of his environment, so changed are the inner and outer relations from his previous existence, that he rushes back to his former habits, as a fish would take to water, and for analogous reasons. Hard drinkers are the first to succumb to epidemics, such as cholera and yellow fever; and abstinence merely uncovers the debasement and organic weakness that these epidemics co-operate with destructively.

Abstinence, after prolonged use of liquor, is sometimes followed by acute melancholia, in which the delusions of that psychosis are commingled with some that are peculiar to alcoholic insanity. This depressed state seems to be owing to exhaustion of a system habituated to alcoholic sustenance, and not yet readjusted to the assimilation of proper food. A demented condition more or less profound may be the result of the same causes. A well-known stockyards millionaire of Chicago had, up to his sixtieth year, guzzled fusel oil in all its disguises as ethyl alcohol compounds, and a sharper, shrewder person was hard to find; but he abandoned his drinking suddenly, utterly, and completely; and during the succeeding three or four years gradually became incapable of attending to business, presenting the apathy, memory loss, and other characteristics of what is known as "primary mental deterioration," but which Voisin claims to be "atheromatous insanity,"—the destruction of blood vessels found post mortem justifying the designation. While this mental malady is often independent of alcoholic habits, its appearance as apparently connected with the stoppage of drinking is worth noting. In those who indulge many years and then quit drinking, the alteration in behavior is quite observable; they are certainly quieter, calmer, and, while doubtless far better off than when taking stimulants, the general tone is below what it was, or what it would have been had they not drank at all. Meddling with fire must be at the expense of some scars. While atheromatous insanity may occur in the temperate, a condition like it, if not identical with it, may readily be conceived as consequent upon abstinence after long addiction; or the pathological condition mentioned may be directly induced by alcohol, and persist,

whether alcohol is or is not taken after the condition is instituted. The tendency to steatosis in the intemperate will be recalled in this connection; and doubtless many cases of so-called dementia from abuse of alcohol may be found to be of Voisin's type of "atheromatous insanity."

The hyperæmic state of chronic alcoholism necessarily alters the cerebral circulation in various ways in many, but not in all, cases, causing endarteritis, leucocytic exudation, neoplastic organization, and capillary extravasation into the cerebral tissues, comparable to the *rosacea* observable in some drunkards' cheeks and noses. In my autopsies of the alcoholic insane at the county asylum I invariably noticed a rusty discoloration of the dura mater along the course of the superior longitudinal sinus, and other evidences of old inflammatory conditions, such as adhesions of the membranes and cerebral tissue of the convexity and basilar regions. The vascular and meningeal alterations varied in degree according to the patient's age. Where the frailty of bloodvessel organization existed congenitally, there was greater liability to pathological change.

The finer mental co-ordinations in anyone are maintained by effort. As they are faculties latest acquired, and their tenure is so dependent upon full brain integrity, it is plain that the moral nature has been superimposed upon the less easily destroyed brute nature, through finer and weaker histological arrangements acquired and inherited, demanding for their exercise the clearest kind of brain activity. Vitiated blood quickly blots out these better but feebler functions for the time being, just as exhaustion is felt first in our weakest joints. So the moral nature, which is merely a higher intelligence, may depart when the seat of intellect is weakened by any cause such as senility, drinking, insanity, arrest of development, traumatism, and some diseases.

When certain pathological adjustments involving imperfect compensations occur, such as thickened arterial walls which resist the increased flow of blood, then a new plane of mental operation is established, which, if disturbed by change of habits, as by withdrawal of the customary greater heart impulse, is but partly and inadequately compensated by the pure blood supply. Practically the adjacent cerebral tissue must suffer from anæmia to a greater or lesser extent, and where previously the blood was

driven through disarranged avenues, it now makes its way feebly and in places not at all; the sclerosed and otherwise changed tissue becomes a more effectual hindrance to function when the artificial nutrition and circulation are cut off. So the poor fool of a drunkard is too often thus "damned if he does and damned if he don't" continue.

Summarizing post-alcoholic bodily and mental states, there may be found many organic destructive changes in the blood vessels, liver, nerves, and brain, which were not so evident during the addiction, owing to the somewhat compensatory effect of the alcohol, and hence the masking of diseases.

The simple privation may kill because the weak heart loses its wonted stimulant, but such cases are not very common. Debility is the most frequent consequence of "reform," but this is often a return to what preceded and may have led to the overindulgence. Cerebral blood vessels subjected to engorgement are liable to rupture at any time where weak points exist, and fatty degeneration of vessel walls, induced by the liquor, may culminate in apoplexy, whether drinking is continued or not.

A single severe attack of delirium tremens may make profound changes for the worse in the future workings of the brain; and the typhoid stage of some cases of delirium tremens shows the ravages of the poison often in life-long sequelæ.

Chronic alcoholic insanity may make its first gross appearance after abstinence enforced in jail or otherwise.

Necessarily, when liquor is withdrawn, a change for the better is ordinarily the rule; but such withdrawal in some cases may operate as a shock, and in all cases a readjustment of the entire physiologic makeup must occur. It is conceivable that epilepsy or insanity may find in such shock a potent exciting cause, and the whisky soaking is ample as a predisposing influence, when it can alter the brain structure, in time, as thoroughly as a contusion or a concussion.

But what the inebriate has drank, how long he has been drinking, and his power of resistance, associated diseases, hereditary and other tendencies, are all to be taken into account; and with these it is surprising how large a number of heavy drinkers escape any obvious trouble due to such excesses. A well-known druggist of Chicago was a sot until his fortieth year, stopped

drinking, and died at seventy years, having built up a large business; while others who had not taken half his risks with liquor succumbed during or after ceasing their bad habits.

Post-alcoholic conditions, such as insanity, paralysis, weak heart, etc., that occur in a minority of cases after alcoholic disuse, only the most thoughtless or perverted could use as arguments against the stopping of drink, as the liquor in such cases produced the trouble which merely culminated after the habits were changed. Such climax, being inevitable in any case, and impending, might have been reached earlier, or in a graver form, had the inebriety continued.

In a few words, drunkenness is a constant menace to the mental and bodily health, and it is far safer to escape from its ravages, scarred and maimed, than to go on, sooner or later, to certain destruction. Though the vast majority may be rescued entire, or nearly so, from intemperance, no one can tell what the chemic devil has left of him until months or years of sobriety have passed.

Local statistics of alcoholism are furnished by Dr. C. L. Dana,[1] who records that 30,000 persons are arrested yearly for intoxication in New York city, and of these 3,000 are found to be suffering to such an extent that they are cared for in the Bellevue Hospital basement "cells." Three fourths are males. Their ages range from twelve to seventy. Most are between thirty-one and forty. The women are a little the younger. Mechanics, artisans, and small tradesmen furnish the larger number. There are more married women and so-called widows than single women. Drivers, waiters, painters, and liquor dealers supply a considerable quota, while laborers are remarkably few in number.

There are fewer cases in winter than in summer. One half are of Irish birth, and one third are native born, but of these Irish parentage preponderates. The Hebrew is rarely seen in the "cells."

Nearly 5 per cent die of sheer exhaustion after a delirium of two or three days, during which little or no food is retained. The fatality is greater among the men than among the women,

[1] Quarterly Journal of Inebriety, July, 1890, 362.

5 per cent to 1.7 per cent; 142 males and 43 females of the 3,000 are transferred to the hospital wards or insane pavilion. Here most suffer from alcoholic pneumonia, a type almost uniformly fatal, or pass into a condition of low muttering delirium, and finally die of exhaustion.

Post mortem these patients have pale watery brains, with no distinct inflammation; occasionally there are capillary hemorrhages in the pia, or there is a hemorrhagic pachymeningitis. In every 300 or 400 cases of alcoholism a case of alcoholic paralysis (multiple neuritis) is found, generally in women, and often in fat women. These patients usually suffer from low, restless delirium; they also often have phthisis, and die with it or with pneumonia.

Among 3,000 patients over 40 became insane or were so when they entered. The remaining 27,000 arrested would afford a large percentage of insane. Alcoholism is regarded by Magnan and others as furnishing 20 to 30 per cent of insanity. The reports of the New York state commissioners in lunacy from October 1, 1888, to September 30, 1890, place alcoholism at the head of the list of ascertained causes of insanity, furnishing one fourth of the total number of insane. Lord Shaftesbury, who was for fifty years the head of the English lunacy commission, asserts that 50 per cent of all insanity in England is caused by alcohol.

The causes of drunkenness merit the deep study and dispassionate regard of physicians and lawyers who are capable of entertaining just and broad views of sociological matters. The vice theory of the Pharisee in its universal application to all drunkenness is a survival from the ages when the insane were punished as possessed by devils.

The environment is often such as to make drinkers, sometimes hard drinkers, among those who would not otherwise use liquor. Some social customs, now rapidly on the wane, such as New Year's calling, and general "treating;" living in districts where wine, brandy, or whisky are manufactured and freely indulged in as customary, and among the population composing border and gold mining towns; army and navy life in war times, less so during peace; hardships, privations, and other things,—make a composite of causes in connection with human dispositions, weak

enough at best, for to be otherwise would approximate the superhuman. The surroundings and the man's resistance, either moral or physical, are the main factors. A sober man in the days of our remote sottish ancestry would have been an anomaly, and were it possible for him to have existed among the roysterers described by Sir Walter Scott, in all likelihood his abstention would have been due to disease, such as an intolerant stomach, rather than to an exceptional will power. Opiates given by parents or nurses to children, in the form of soothing syrups, paregoric, etc., have sometimes originated a lifelong craving for narcotics or stimulants.

In some European countries drinking is general, and as a rule not recognized as harmful to the majority. Here and there one who takes no more than others is unduly affected. It would be wiser to consider the causes that make such a person an exception than to condemn him for suffering where others are exempt under the same influences.

Every drug has its undue and undesirable secondary effects. Thus, opium constipates and the bromides debilitate, and many persons are so responsive to these undue effects that certain medicines cannot be tolerated. Iodide of potassium, even in small doses, produces in some such a severe nasal and pharyngeal catarrh, that it has no medicinal value for such persons. Atropine, even in small doses, causes mania in some, and painful dryness of the throat in others, so as to forbid its use in any quantity as a medicine. Some kinds of liquors may cause immediate bad effects in a person who can take other kinds without apparent harm. Brandy cannot be tolerated by some wine drinkers, and it is notorious that mixed liquors are worse than drinks made of one kind of liquor.

Dr. C. H. Hughes[1] points to neuropaths, or those who have faulty nervous organizations, either inherited or acquired, as specially susceptible to the bad effects of liquor. Toleration may also be from disease, as in the case of lung consumptives who sometimes drink quantities that would kill a healthy person.

Heredity may predispose the person to drinking and to all the evil consequences thereof, just as it may confer toleration and

[1] Alienist and Neurologist, Oct., 1897.

exemption. So we punish the unfortunate and commend the fortunate in such instances, when neither is to be blamed or praised for that for which he is not responsible.

The intelligent hard drinker is amazed at the conflict between his will and his desire, and the alternating weakness or strength of the one and the other. The will power required to resist the desire in some cases seems to be that which would enable a person to hold his hand in the fire. The intensity of the craving is so uncontrollable in some that it causes them to drink turpentine, coal oil, shoe blacking, hair wash, liniments, and even deadly poisons, known to them to be such, when intoxicants that are preferred are not obtainable. Blackstone says: "It is highly just and equitable that a man should be excused for those acts which are done through unavoidable force and compulsion."

The causes of drinking are often identical with those that produce diseased and insane states generally. The history of the inebriate is one of disease and insanity; his behavior is irrational, his life is miserable and his end is unhappy, in common with other diseased and insane wretches. We blame him for his weakness, which is often transmitted; we allow him no consideration for his faults; and we reward the dramsellers, who pander to his appetite and profit by his degradation, by giving them the management of our elections, distributing offices among them, and even by putting them in direct control of the wrecks they have made, by presenting them with trusteeships and making them wardens of insane asylums.

Circumstances operate to-day to keep millions sober; fortunate environment, a healthy repugnance, which is physical more often than moral, good heredity and training, and sometimes a transmitted tolerance of alcohol, through the excesses of progenitors operating by way of natural selection to eliminate such progeny as were susceptible to the destroying influence of liquor, and cause those to survive who could dose themselves with the poison with apparent impunity. These fortunates are all too frequently inclined to plume themselves upon the fact that they can abstain altogether, or that they "can take it, or let it alone" as they please. Among this latter class are multitudes who overestimate their will power, for many years must pass before it can be told whether this ability is permanent or not.

It is the duty, from a common-sense point of view, of every person to eat only wholesome food, and to indulge in nothing that is likely, sooner or later, to derange or destroy him, and in so far as supposedly rational people are inclined to do otherwise it must be through undue influence, ignorance, or both. The undue influence may be merely in the customs of the people, and the ignorance may be general among them; but the results are the same as though drink were used after full consideration of the consequences.

Uncontrollable appetites for liquor frequently originate in head injury, sunstrokes or overheating, typhoid fever, erysipelas, or any other cause of unstable conditions of mental or bodily health. The same causes that originate insanity suffice to produce drunkenness,—such as domestic trouble, including loss of relations and friends; adverse circumstances, including business anxieties and pecuniary difficulties; other mental anxiety and worry, overwork, privations, hereditary influence, congenital defects, senility, pregnancy, lactation, etc. Sexual abuse and disease may also originate drunkenness as well as insanity; and in this as well as in other respects the drink habit may have begun in what is recognized as vice; but even this is all too often directly due to prior debased mentality, inherited or acquired innocently. Drunkenness and insanity are often based upon predisposition, a tendency transmitted or accidentally originated, and the exciting cause may be insignificant in comparison; but when this latter is the only thing apparent to the public the drunkenness alone is commonly mistaken for an avoidable "vice." The cure of numerous apparently hopeless cases under appropriate treatment sufficiently proves that a diseased condition is the cause of the habit; and many such cases have failed to be "reformed" by other means. Inebriety itself should arouse the suspicion of a cause lying beyond the control of the individual. It is inconceivable that one should persist in a course that he knows is detrimental if not positively suicidal, and at the same time be in possession of normal health and mental faculties. However the appetite may be initiated it is a fact proved by every-day experience that it becomes a diseased state which can no more be remedied by scolding than can Asiatic cholera or cancer. The astonishment and remorse of the awakening from a debauch are worth considering in such cases, together with the inevitable relapse.

Charles Lamb[1] pathetically narrated the tortures and futility of attempted abstinence in the habitué who earnestly desired to stop drinking.

A. E. Hyde, in a popular but none the less truthful essay, describes the struggles against the growing habit and the inability of the victim to prevent its passage from the formation to the final stages: "After a few hours of hard drinking he is absolutely unconscious of what he says or does. He may travel miles on a railroad train in this state of complete mental stupefaction without being able to tell, if his life depended upon it, a single circumstance connected with his journey. He has lost all idea of time and locality, and must inquire the day of the month, the week, the hour, the place. He may stagger or travel miles through crowded thoroughfares, and never be able to recall a single incident. It is possible for him to meet and converse rationally with an acquaintance, but he will never remember a syllable he has uttered or the meeting itself. He may sustain severe physical injury, the occasion of which is forever afterward shrouded in mystery. One could charge him with any crime, however horrible, he could neither intelligently deny the accusation nor prove its falsity. The brain is no longer a healthy organ; it is incapable of performing its important functions, the chief of which is self-control. It mechanically clamors for some restorative agent other than the slow recuperation through rest and food, irksome to one whose nerves are all unstrung from excessive loss of both. Whisky has become a constitutional necessity now, not a pastime nor a pleasure. Drink after drink may sometimes be vomited before one can be induced to "stick." With a piece of lemon, salt, or pickle in hand he gets his mind as far away from the whisky as possible while he quickly gulps it down. If it comes into his mouth again he forces it back. Now, this man is considered sane on other subjects. Why should he do this repulsive, idiotic act if he is not diseased? Why should he force this nauseating stuff on a rebellious stomach from any other reason than physical necessity? In consideration of these facts, inebriates in the uncontrollable stages of their malady should arouse our commiseration and pity, rather than our con-

[1] Confessions of a Drunkard.

demnation and disgust. They are as certainly and awfully diseased as the lepers of old. At the time of all times when it is to his greatest interest to keep sober, he gets drunk. At the time of heaviest family sorrow, bereavements, troubles, and responsibilities, he gets drunk. If his life, character, and prospects are in the balance, he gets drunk. In the face of tears, entreaties, and prayers, he gets drunk. Knowing that each spree only intensifies the torture of the mind and body he has experienced hundreds of times before, and plunges him deeper into degradation, knowing that it adds to his own personal troubles and difficulties, he gets drunk. You ask him, "Why did you do this?" He cannot answer, he does not know. You charge him with malicious wilfulness, ingratitude, hatred of home and family, he is dumb; while he knows the charges to be unjust, he cannot for his life give a reasonable explanation of his conduct. It is this failure to account intelligently for his own disgraceful actions which forms in him the habit of laying the blame upon others." Hyde speaks of the confirmed drunkard crawling at the feet of an ignorant and depraved barkeeper, drinking in with forced interest his every word, roaring boisterously at his vulgar jokes, longing for an opportunity to do his bidding, transformed into a miserable sycophant for the consideration of one drink of whisky. To the hapless drunkard this man is a king, a potentate whose frown means abstinence and horrible torture, whose approval means a drink.[1] The staid respectables, so ready to condemn the drunkard for his sin, allow these saloonkeepers and gamblers (if they do not vote for them, because found on their party tickets), to be placed in control of municipal affairs; in charge of hospitals, poorhouses and asylums, where they can rob, freeze, and murder, directly and indirectly, the sick, impoverished, and insane, a large percentage of whom they have created, and thus literally be enabled to chase their victims to the grave.

Dr. Majors' West Riding Asylum reports[2] differentiate the 17.2 per cent of alcoholic causes of insanity in his institution as follows: Alcoholic excess singly, 7.5; alcoholic excess with hereditary tendency to insanity, 4.0; alcoholic excess with other physical causes, 2.7; alcoholic excess combined with moral causes, 3.0.

[1] Chicago Tribune, March 29th, 1891.

[2] Tuke's Psych. Dict., 1206.

Occupations, such as cooking, furnace feeding, and night work of an exhausting nature, foster the drinking habit, and the consequences are a mere matter of resistance.

The vast army of tramps has been found to contain many dements, some of whom were made such by drink and others were insane before they became tramps, whether they drank or not. Some forms of imbecility prevail among this class, as might be expected from their recognized defectiveness.

Blackstone' remarks: "It hath been observed that the real use of strong liquors, and the abuse of them by drinking to excess, depend much upon the temperature of the climate in which we live; and Montesquieu said that the German drank from custom founded upon a constitutional necessity."

Alcohol may be summed up as at once the friend and enemy of man. Ships have gone down at sea and millions have been drowned in water, and yet we continue to use hydraulic machines, and can safely assuage thirst. If just the right application of alcohol could be made in all cases it would cease to be dangerous. But is the right application of anything always made in this world? Instead of wishing its destruction the masses should be educated to an understanding of its exact nature and that all are not alike in susceptibility. There are those who can indulge in moderation, but it is nothing for which they should take credit to themselves; it is due to an accident of organization. Others harm themselves with even moderate drinking. Some are rapidly destroyed by tampering with it; others are plainly benefited for a time at least. Overindulgence may wreak its worst effects upon some other organ than the brain. Some are warned away by gastritis, and a fortunate warning it is; they are compelled to be sober against their desire. There are those who cannot touch it from idiosyncrasy, or who do not touch it from principle and integrity of will power,—a mere matter of health. To some it is repulsive by association, or naturally.

Manifold are the questions involved; and when we come to examine into the weakness of one neighbor and the strength of another; the peril that alcohol places one in, and the good it does another; and the frailty of flesh and blood in general, when we

[1] Commentaries, IV., 26.

consider what a struggle it is to evolve civilization out of savagery; how thinly the latter is veneered with the former; the temptations that beset us, and that many a grand mind and noble life has been destroyed by an accidentally encountered drinking environment; and particularly when we know that we are individually what our structure enables us to be, and that character, position, ability, everything, depends upon mere circumstances; that we are exempt from some troubles by good fortune which was denied others; that a fall, a fever, a blow on the head, a grief, may change any nature in the world for the worse,—we then experience some of the mental broadening which all knowledge gives; we grow more charitable, less inclined to rant against the sins of our neighbors, less pharisaical, and more inclined to help as we would desire to be helped under similar circumstances. In fact, science compels charity, knowledge of the truth makes us merciful, where self-sufficient railings at "sin," the inability to separate the sin from the sinner, drive drunkards to deeper degradation, and cause disease to be confirmed. Intolerance and bigotry are the results of ignorance, and all three have done as much harm in the world as intemperance, if not more.

Delirium tremens, or mania a potu, may be the immediate effect of an excess, or series of excesses, in those not habitually intemperate, as well as in those who are; but it most commonly occurs in habitual drinkers after a few days of total abstinence. Diseases or injuries, a surgical operation, fright or shock, acute inflammations, and particularly pneumonia, may cause the delirium. An attack may appear at the height of an alcoholic debauch, or a day or two after stopping the excessive drinking. In either case the alcohol is the cause of the tremens, and in all likelihood the attack would have appeared whether drinking were continued or not. Sometimes the drinking may be voluntarily discontinued, if such patients can be supposed to have any volition where drinking is concerned; more probably the system has become so saturated with the poison that the depraved appetite is satiated. Soldiers when arrested during a debauch, and deprived of liquor suddenly, frequently develop delirium tremens; and the privation precipitates the attack as any other shock might, but it is uncertain that the tremens might not have appeared anyway;

when conditions are ripe trivial causes may arouse the disorder. Steady drinkers occasionally exhibit tremens unexpectedly, in the course of pneumonia, or even after receipt of a trifling injury. So alcohol predisposes to delirium tremens, and the delirium makes its appearance when severe or slight exciting causes co-operate. Relativity is important in the matter; saturation to a certain limit may produce the attack, but anything that lowers resistance may bring it on sooner, and deprivation may be such a factor. Exposure to inclement weather, overheating, amputation of a limb, or even a slight fracture, may thus operate, usually thirty-six or forty-eight hours afterwards.

It begins usually with slight tremulousness of the hands, legs, and voice, and restlessness and anxiety which the patient cannot describe or account for; he is depressed, sleeps badly, and this causes him to partake of increased quantities of liquor. In two or three days the characteristic delirium sets in; sleep ceases altogether; he talks constantly and incoherently; the mind wanders more by night than by day, when he may, at times, talk rationally; but soon the delirium is constant; he is incessantly in motion, and frequently endeavors to escape that he may attend to some imaginary or real business; he may be induced to eat, but usually it is with great difficulty that he is persuaded to do so, the stomach often rejecting food; and to sustain life it may be necessary to resort to frequent milk or broth feedings. Epileptiform convulsions, at times quite violent, may usher in an attack, and are regarded as increasing its gravity. The delirium is like an exaggerated dream. The sufferer fancies that he is thwarted and constantly impeded by obstacles. He expresses feelings of suspicion and fear, imagines he is about to be robbed or murdered, and says that he can overhear conspirators planning to that end. He may fail to recognize his surroundings even in his own house. Hallucinations of sight include many objects, mainly disagreeable. In old times devils and snakes seem to have predominated, but nowadays rats, mice, and vermin generally are most frequently mentioned by the sufferer. He is likely to claim that he is attacked or pursued; often the fear of fire and of being burned is dominant; and in his terror he may cut his throat, shoot himself, drink poison, or jump from a window. The ideas change rapidly, and are always depressive and painful. He

may murder some bystander regardless of his previous feeling toward that person. His wife, mother, or other relation, a stranger, a friend, an enemy, alike are in danger; and he may explain what he has done as justified by some insane fancy. Some cases are more easily managed, however. Certainly no criminal responsibility can attach to what such an insane person may do, and therefore the symptoms of the disorder should be plainly recognized when crime is alleged to have occurred during this form of mania.

Auditory hallucinations are often those of roaring animals, crackling flames, and threats of enemies. There is much muscular tremor, and furring of the tongue. The pulse is rapid, 100 to 120, soft and compressible, with fever usually ranging from rarely higher than 102° or 103°F. In fatal cases the heat is greater.

Delirium tremens will mask the symptoms of any disease or injury. Pneumonia may exist undiscovered at the time. Pain is unfelt, and a broken limb may be thrashed about by the patient recklessly. There is no desire to eat. Constipation is the rule. Sweating may be profuse, and in some cases the fever may be very slight. The urine may be scanty, high-colored, and loaded with albumen. Three or four days of this may end in death, or the beginning of recovery, in which the patient sleeps a little, fitfully and irregularly, and finally in long, sound, refreshing slumbers. If sleep does not appear at this period a fatal termination is usual, often in spite of the best medical and other care. After recovery the tremor persists a little for some days; the hallucinations gradually disappear; the appetite returns; but the pulse becomes frequent and feeble; the tongue is dry; prostration is extreme, and the heart is so weak that, unless sustained, death may occur at this stage.

Often when the delirium is the culmination of a debauch the gastritis is so severe as to render it next to impossible to keep anything on the stomach. In some cases clam broth was the only sustenance; sometimes beef tea is successful as a nourishment; but in all cases the necessity for keeping up the strength with other things than stimulants must be borne in mind.

The recovery rate is large, but recurrences are frequent. In the Philadelphia Hospital, Osler reports the death rate as 10 per cent of those attacked with delirium tremens.

A typhoid stage may follow, particularly in those who have suffered from several attacks of delirium tremens. In this state the patient is "half-asleep," muttering, picking at the bed-clothes; the eyelashes may be glued, the mouth open, lips and tongue dry, leathery; there may be Cheynes-Stokes breathing, a temperature of 102°, and sometimes parotiditis. The excretions may be passed in bed. This may last six or eight weeks, or longer. About 6 per cent of such cases recover, but they usually grow weaker, the temperature runs up to 108° or higher, and they die.

Dr. G. B. Twitchell[1] reports that of 360 cases of alcoholism at the Cincinnati City Hospital 132 had delirium tremens. About 27 per cent died. Of 109, 20 died at the end of the typhoid stage, and 9 in the violent stage. Of 80 recoveries 33 were in the incipient or abortive stage, a type wherein the symptoms are suddenly arrested; 7 recovered after the typhoid stage, and 40 after the violent stage began. Many of the 40 were mild cases.

Alcoholic trance is a condition described by several authors, as to the nature of which there may be diversity of opinion. Dr. T. D. Crothers[2] says that in inebriety a state of trance may arise in which the condition of the brain involves the suspension of all memory and consciousness of acts and words, the individual going about automatically, with little or no indication of his actual state. The higher brain centers are in abeyance as in spontaneous or artificial somnambulism. This condition may last for several days, or only for a few moments. Crime may be committed without motive or apparent plan, but when studied the details and methods of execution will be seen to be imperfect. After this state has passed away there is no remembrance of what has occurred.

There are recorded instances of marriages which have taken place while one of the participants was in this condition, and divorce has been subsequently sought unavailingly, as it was shown that there appeared to be full possession of faculties at the time of the marriage. Large purchases and sales and contracts have been made by others while so full of liquor that no remembrance of the transactions remained upon recovery, and

[1] Medical News, July 29th, 1893.

[2] Quarterly Journal of Inebriety, July, 1889.

yet no fault with the details, as subsequently learned, could be found; the person did only what he might have done when sober. One man took a steamer for Liverpool and awoke at sea without the slightest idea of any plan or possible motive in so doing. Several after drinking heavily have recovered their senses in strange towns many miles from their homes, and days after recollection of any event had left them. An army officer during the civil war had a clear recollection of having performed certain complicated duties; but he found a day later that he had dreamed the entire matter while intoxicated and asleep on horseback; and yet he would have sworn to the reality of all that he thought had occurred.

It is a common plea of inebriates who have been arrested for all sorts of criminal acts—homicide, arson, stealing, and indecency—that they have no recollection of what they have done; and it is still more common for an inebriate to recover from a spree and to experience great mortification over what he finds he has been doing, with no recollection of any event of his disgraceful performance. The resemblance of such phenomena to epileptic phases is very close; and it is to be remembered that alcoholism may be attended with veritable epilepsy, including *petit mal* and convulsions, and in the relation of cause and effect. Sometimes a hazy recollection of drunken acts is preserved afterward, or here and there a more or less distinct memory of things spots the debauch. It is told of a gold miner that when drunk he buried some treasure so carefully that months of search and endeavors to recollect the hiding place were ineffectual. Finally he deliberately got drunk, and while in that state went straight to the hiding place and recovered the treasure. There are reasons for believing that sudden remembrance of what has been done in these states of mental obfuscation has occurred, a long while afterward; but in most instances such things remain a complete blank in recollection for the remainder of life.

Whether there are subconscious states, conditions of "double-consciousness," or whether such automatic acts are consciously performed and entirely forgotten, obliterated from memory, the facts remain that sometimes, for all practical purposes, unconscious acts of more or less complexity, good, bad, and indifferent, criminal or otherwise, with or without apparent motive, have

been performed while intoxicated; and there is but little evidence, aside from the bare disclaimer and the amount of liquor taken, that the inebriate did not know what he was doing at the time. We know that there is such a disorder as somnambulism, and, further, that drunkards often fail to remember what they have done while drunk, and that most disgraceful things have been performed in that state by persons who, we have every reason to think, are not naturally vicious, with no recollection retained of such acts. So that, whether urged in extenuation of a criminal offense or not, the probability of such a mishap is a matter of fact, whether the claim that the "trance" occurred is true or untrue. Often this would be impossible to determine; though a full consideration of all the circumstances might raise the probability to something little short of a demonstration.

Memory, rather than consciousness, appears to be involved in these trance cases, for the acts often appear to be rational and such as are habitually performed; and it is remarkable that frequently drunkenness is not suspected by others at the time. Lawyers have conducted cases, creditably throughout, from selecting a jury to making the closing arguments; physicians have attended patients, to all appearances intelligently and with favorable results; large transactions have been arranged by mercantile men and no detail could be found fault with; and yet all of these individuals have been so poisoned by liquor that none of them had the slightest recollection of what he did. Few can recollect anything prior to their fifth year, and yet we cannot deny consciousness, such as it may be, to babies up to that fifth year.

To further complicate the psychological bearings, suppose, after a long time, one of these amnesic periods of drunkenness ceases to be such, everything that was done is remembered in connection with what preceded and what followed the period; and such revivals of recollection have occurred. Analysis will show that the acts appear either rational or irrational. The acts may seem to be in keeping with the character of the normal person, and yet not such as he would have performed if sober, however advantageous they may have proved.

Dipsomania is an insane, irresistible tendency to drink, during which the will is paralyzed so far as ability to resist the desire to drink is concerned. The patient recognizes his diseased condi-

tion, and experiences great mental anguish over his inability to control the desire. In the beginning of insanities accompanied by excitement, and sometimes in melancholia, great inclination to drink liquor may be manifested; and in a type of degenerates called "phrenasthenics," and among subjects of neurasthenia, or of debilitated states of mind and body, impulses to drink may become uncontrollable. These degenerates and neurasthenics furnish the true dipsomaniacs. These impulses are intermittent and paroxysmal. The patient suffers from bodily discomfort, appetite impairment, and bowel disorders, and is greatly depressed when the desire for alcohol appears.

Esquirol,[1] cited by Ray,[2] in the early part of the nineteenth century clearly recognized and described the disease, and it is discussed in every subsequent systematic work on insanity. Legrain[3] claims that a person may suffer but a single attack in a lifetime; but the rule is a repetition of attacks. Some patients, according to Magnan,[4] begin with taking water, mucilaginous, or soothing drinks, but the craving is not appeased and they resort to wine and finally the stronger alcoholic liquors, which merely increase the desire. One glass follows another, and the will soon ceases to struggle. The patient's endeavors to resist at first are desperate, sometimes he has himself locked up in a hospital or at home, gives his money to others, or he may seek other means of prevention, which are usually futile. Where the abstinence has been enforced, as among convicts, agitation with some delirium and great prostration has sometimes resulted, the attack often being mistaken for tremens from privation. Others recover with much less suffering, some appearing drunk, even though absolutely no liquor had been taken. The debauchery is excessive and may last days or weeks, sometimes with short intermissions and relapses. Dipsomania has sometimes begun at the climacteric period in women. Magnan claims that the habitual drunkard becomes insane because he drinks, while the dipsomaniac drinks because he is insane.

[1] Des Maladies Mentales, II., 73.
[2] Medical Jurisprudence of Insanity, 443.
[3] Tuke's Psychological Dictionary, 389.
[4] Lecons sur la Dipsomanie, Progrès Médical, 1884.

Alcoholism does not lead to dipsomania, but the latter is complicated by alcoholism, so the two conditions may combine toward further mental degradation.

The appetite for strong drink is completely absent in a dipsomaniac during the interval between attacks. The chronic drinker is satisfied when his system reaches a certain stage of saturation, but the intervals are seldom longer than twenty-four hours; whereas the dipsomaniac may be sober for months or even years, during which there is no desire for liquor, rather a repugnance to it. Secret drinking is sometimes found among habitual drinkers, but it is the rule among dipsomaniacs during their excesses, until reason is too blunted to enable them to know what they are about. The so-called trance conditions are common among dipsomaniacs, and they may beg or commit larceny or prostitution during the height of their attacks, the sole object being to procure more liquor, which they swallow in most inordinate quantities. One case in my practice[1] lost consciousness before he was aware of an attack. He had an epileptic daughter. Another case, a female, alternated epilepsy with dipsomania. And a justification for classifying dipsomania with the "obsessions," or perverted will-neurasthenias, appears in another case of mine,[2] wherein panphobia and especially agoraphobia, a general timidity including a fear of crowds and open spaces, was alleviated by heavy drinking, and the drinking impulse was self-excused because, for the time being, it afforded relief; but he finally died during one of his excesses.

Oinomania is a synonym for dipsomania, but Legrain suggests its restriction to a class of drunkards who have been styled pseudo-dipsomaniacs or chronic dipsomaniacs. The pseudo-dipsomaniac is merely a chronic drunkard with an incessant craving for alcohol and a sincere desire to resist because he is aware of the consequences of his intemperance and that his will power is defective. It is necessary to recognize the difference between the dipsomaniac, whose drinking originates in an inborn uncontrollable impulse, and the habitual drinker who has acquired an uncontrollable taste for liquor. The fact that some chronic alco-

[1] Quarterly Journal of Inebriety, October, 1890, 369.
[2] Alienist and Neurologist, October, 1890, 535.

holics strive sincerely against the addiction, and that others do not do so, should be recognized. Among the first of these, recoveries under suitable treatment have occurred, as the desire for a cure aids their final abstinence, when it is made possible. Among those who do not care to give up the habit, insanity is imminent, if it is not already instituted. The term "alcoholophilia" has been invented to designate those who are often spoken of as having "alcohol on the brain" metaphorically; those who would not, if they could, be cured.

Dr. T. S. Clouston,[1] of the Edinburg Asylum, remarks the frequent association of overwhelming appetite for liquor with many forms of insanity, such as circular insanity, melancholia, epilepsy, paranoia, senile dementia, and syphilitic insanity. After a head injury the addiction is very apt to originate. Bad heredity and diseases of various kinds, besides mental derangements,—typhoid fever, for instance, as well as la grippe,—precede, if they have not directly caused, many inclinations to excessive drinking.

Alcoholic paretic dementia is a well-marked form of insanity that may arise during chronic alcoholism. It differs from ordinary paretic dementia in its curability, or disappearance when the patient ceases to be poisoned by alcohol. Such cases are apt to be maniacal, or at least voluble, with the delusions of grandeur, hesitating speech, and ataxic gait of ordinary paretic dementia, but the "quiet type" may also develop, judging from the description of a case by Dr. R. M. Phelps, of the Rochester, Minn., Hospital for the Insane.[2] Inequality of the pupils is more constantly found in alcoholic paretic dementia, and it persists longer than does the speech peculiarity symptom. Recurrences are common. Ball and Regis[3] report a case that relapsed sixteen times in thirteen years. It is regarded as a functional disorder, but the usual pathological conditions found in alcoholism may be present in varying degrees.

Chronic alcoholic insanity in its full development is an exaggeration of many of the peculiarities of chronic alcoholism, with which it is confused by many authors, but from which it is

[1] Quarterly Journal of Inebriety, July, 1890, 224.
[2] Journal of American Medical Association, May 25, 1895.
[3] E. Regis, Prac. Manual of Mental Medicine, Tr. by Bannister, 1894, 502.

separated by Spitzka.[1] The occasional insane behavior of the acute or chronic alcoholic is due to a toxæmia, a purely functional disturbance wrought by the poison through the circulation, acting upon the brain. Many chronic alcoholic insane exhibit symptoms bearing a remarkably close resemblance to those commonly found as the result of injury to the brain, in traumatic insanity. These symptoms are: changes of character, lapses of memory, headaches, sleeplessness, long apparently lucid intervals, homicidal and suicidal impulses, delusions of persecution. These peculiarities appearing in the alcoholic insane long after they are incarcerated in an asylum, during which time no intoxicating liquor has been taken by them, point clearly to organic brain destruction accomplished from within, as severe and hopeless as when the brain has been injured by a blow upon the head, with subsequent extension of inflammation to the membrane and cerebral tissues.

It is when the mental degradation which temporarily occurs in alcoholism becomes permanent that chronic alcoholic insanity may be said to exist. During the acute stages there may be hallucinations, illusions, and delusions, which disappear on recovery from the blood poisoning. The persistence of some of these states betokens permanent damage to the mental apparatus; and the brains of the chronic alcoholic insane invariably exhibit evidences of destructive organic changes. The transition from alcoholism to chronic alcoholic insanity is accompanied with a progressive loss of ethical and intellectual functions; the character of the patient gradually changes for the worse; views of honor and propriety are lax; and he is apt to act impulsively against higher feelings. The memory suffers impairment in varying degrees, and may be regarded in all cases as unreliable. Sleep is irregular and unsatisfactory in all stages of alcoholism; dreams are distressing, except when stupefied. The victim grows inordinately selfish and is inclined to sacrifice everything to his desire for drink. No reliance can be placed upon the statements of the chronic alcoholic; he tends to become a confirmed liar, often from inability to determine the truth. If opium addiction complicates the alcoholism the lie is preferred even if truth would serve better. The loss of character is more

[1] Manual of Insanity, 251.

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apparent than intellectual impairment, and so it appears improbable to the majority that his offenses are due to a diseased mind. To a certain point, abstinence may cause all these lowerings of the mental and moral nature to cease, and there may be a rapid return to the former intact state of mind; but when the toxæmia gives way to, or establishes, structural brain changes, recovery is impossible.

Abuse of the family, especially the wife, arises from the combined selfishness and cowardly inclination of the chronic alcoholic to maltreat anyone in his power. The irritable brain condition and its discomfort is vented upon the weak and unprotected. All grades of delusions as to poison and sexual matters may exist,—such as that the genitals are mutilated or destroyed. Self-mutilation has been performed by these insane persons in connection with some delusion regarding those parts. It is with astonishing frequency that jealousy of the wife or mistress exists to an exaggerated degree in most forms of drunkenness, ranging from simple suspicion to delusions of marital infidelity, which in extreme cases may originate hallucinations of gross amours carried on in the patient's presence. It sometimes happens that the alcoholic may have grounds for suspicion in facts, but this does not lessen the delusional origin of his accusations. A frequent outcome of the notorious marital unhappiness thus caused is a brutal wife murder, the body of the victim sometimes being found hacked to pieces or partly destroyed by fire. The insane fiend may make but a stupid attempt to escape, or none at all, either expressing surprise at, or doubt of the reality of, the event, or attempting justification in explanations. Sometimes alcoholic insanity with its jealous promptings and delusions is responsible for the murder of other persons than the wife. Redmond, of Chicago, who had previously been held in an asylum for well-recognized alcoholic insanity, after being liberated, actuated by groundless suspicions concerning his wife, called Dr. Wilder by telephone, and upon his appearance shot him dead without warning. Redmond was sent to an asylum for the criminal insane. When an alcoholic assaults someone and alleges unfaithfulness of the wife as a cause, the tendency of the alcoholic insane to make unjust accusations of this nature and to act thereon should be recalled.

Perverted sensations are common to alcoholics, such as tinglings, or other paræsthesiæ, suggesting delusions of being persecuted by electrical appliances used by enemies, or they may account for such hallucinations in some other insane way, such as witchcraft, poisoning, etc. The sense of taste is so altered as to induce them to suspect that poison is being given them in food or drink. Hand, tongue, and lip tremors are usually observable. These are lessened when liquor is taken.

Numbness or anæsthesia, and all sorts of sensory disturbances, may be experienced, such as impaired hearing and eyesight, roaring noises in the ears, tinnitus, or amblyopia, and hallucinations or illusions of all the senses.

Chronic alcoholics are badly nourished, with either reddened or pale faces, the latter condition usually following incarceration or sequestration, in some cases being only the "jail pallor." There is usually more or less liver and kidney trouble, and erratic blood supply; sometimes there is fatty degeneration of the heart and atheroma of the arteries, with dilated capillaries. The muscular relaxation is often seen in the body bent forward and the blank facial expression. The pupils may be normal, dilated, or contracted. Sometimes the hallucinations common to delirium tremens may afflict the chronic alcoholic insane person. The memory and intelligence suffer gravely, though not always obviously, for it may require considerable familiarity with the former peculiarities of the patient to determine the degree of mental impairment; and comparisons of his past and present are often possible only when he has been under observation for a greater or lesser period; in some cases months may be necessary. He may be able to attend to routine duties, but is inconstant and easily diverted. The reasoning powers are lessened in varying degrees, and many such changes are not determinable offhand.

Delusions, particularly such as relate to the wife's unfaithfulness, are fixed, but not systematized, for his explanations concerning them are vague and illogical. There is a melancholic persecutory tinge to all his ideas. Some cases of chronic alcoholism on the verge of chronic alcoholic insanity experience auditory hallucinations of mandatory and accusatory kinds, and these may become so distressing as to lead to suicide, homicide, or insane acts generally. The dangerous character of insanity with auditory hallucinations is fully recognized by alienists.

In asylums for the insane will be found many cases of insanity that have been complicated with alcoholism, particularly a peculiar form called traumatic insanity, the result of head injuries, after the receipt of which there is a remarkable tendency to drink to excess; and the alcoholism may be combined with the traumatic insanity in every conceivable degree, sometimes outrunning the original psychosis in its influence for evil. Epileptics are sometimes incorrigible drunkards, and epilepsy may appear for the first time when an alcoholic has abstained from liquor for some unusual length of time. In such cases there may have existed *petit mal*, unnoticed previously, or convulsions may have occurred at night, during sleep, and after stopping the use of liquor the fits have appeared during the day, because of the alteration in habits. Any other form of insanity may have, to some degree, the impress of alcoholism to modify it; and where this complication is extreme, as it is frequently in the head injury cases mentioned (sunstroke victims fall within this category), there are characteristics in common with those of chronic alcoholic insanity that are well recognized by asylum physicians and that often cause considerable annoyance.

Soon after the commitment of a chronic alcoholic insane case to the asylum or hospital, he appears to improve remarkably, if he escapes the consequences of his last debauch and does not die of pneumonia or exhaustion. Locked up at first in a ward he is sooner or later trusted about the grounds, and can be made very useful as a workman of some sort. He may refrain from asking for a discharge for a long while, for the purpose of convincing the superintendent of his recovery, but unless the patient conceals his delusions, as many insane do, he is liable, with a little questioning, or in his letters to friends or relatives, to reveal the permanency of his delusions of persecution. The writings of some of these apparently sane alcoholics contain the foulest abuse of mother, wife, or children, without the least warrant for it in their former treatment of the patient. Sometimes a weakminded relative may be found espousing the cause of the "unjustly detained" alcoholic, or well-meaning but misguided friends may satisfy themselves of the "recovery," and even resort to habeas corpus proceedings to secure the patient's discharge.

Under the watch and restraint of hospital sojourn and their

gradual admission to parole, with occasional breaks thereof, many of these patients assume, to all appearances, their original mental condition. To the superficial observer they are perfectly sane; they may work cheerfully in the asylum shops, and talk quite intelligently about the possibility of relapses if allowed to go. But a large percentage are importunate, and these are the least to be trusted, for their anxiety to flit is born of their inability to gauge their feeble will power to resist temptation. If they are discharged, back they come, not infrequently with newspaper or other criticism of the hospital authorities for having liberated such a dangerous character. These same critics are just as liable to write up sensational comments on the injustice of keeping perfectly sane persons at the behest of relatives who, the critics affirm, have some pecuniary motive in the patient's being deprived of liberty. Nor is the trouble taken to inquire whether the county is charged with the case as a pauper or not. When habeas corpus proceedings are begun, the natural inference is that there must be some malign reason for the detention. Probably it is just as well in the long run that the public should be suspicious; but the conscientious hospital physicians are put to unnecessary trouble in explaining matters of pathology and general medical experience to laymen who are much more familiar with business affairs.

The hospital physicians will congratulate themselves that cases of this kind are improving, and discuss the advisability of trusting them on parole, preliminary to letting them go home on trial, but the records of the cases suggest caution, such as domestic horrors, including attempted wife murder, brutality to children, improvidence to a criminal degree, the wife usually faring the worst, though when he is not drinking she claims her husband to be the "best and kindest of men." Notwithstanding all this, such near relatives often beset those in charge of the hospital to liberate their husbands, sons, or fathers,—poor ignorant creatures,—because they can only see the hopeful side of matters for themselves, and cannot appreciate the vast fund of information possessed by the doctors as to the frequently disastrous consequences of too early discharges, or, sometimes, any discharge at all.

Alcoholic insane who have been apparently sane while at the asylum and even after ten years of restraint, when allowed to return

home have been known to resume their bad habits, such as furniture smashing or chasing the family into the street with axes or knives, and, after being returned to the asylum in a maniacal state, to resume all their apparent sanity and sweetness of disposition, such as arouses the suspicion of the visitor that some unworthy motive on the part of somebody withholds so useful a person from society at large. Among the sadly comic instances of this kind appear liberations made, after carefully weighing the probabilities and enduring the threats, entreaties, and promises of the family and the patient, against the better judgment and misgivings of the physicians; but when some tragedy occurs, as all too often happens, forthwith not only the public but the relatives censure the weakness of the doctors for having listened to them at all. A washerwoman, who had about as much experience of the inner life of a large city as some physicians acquire, used to dub the defects produced by alcoholism "street angels and home devils."

There is much danger to the community in the seeming sanity of such cases. There is no provision for their incarceration on the ground of their great liability to be homicidal; and when they do commit a murder it is a difficult matter for the public to comprehend the insanity during the quiet stage induced by imprisonment and liquor deprivation.

Alcoholic dementia is simply a secondary or terminal dementia, of profound type, which has usually rapidly supervened upon alcoholism, the intermediate stage of chronic alcoholic insanity often being short or escaping notice altogether as such, being graded from the general alcoholism. It is as permanent and incurable as any other secondary dementia. The organic brain and bloodvessel changes in this and other chronic alcoholic insane states often shorten the lives of patients; many succumb from pneumonia, which proves so fatal to drunkards generally.

Cases of Alcoholism and Alcoholic Insanity.

F., an army officer, lost his left arm in battle during the civil war. He suffered from pain in the stump, and drank to secure relief. Gradually became an habitual drunkard, and died in an attack of delirium tremens.

D., barber, left leg amputated, became a chronic alcoholic in

attempts to relieve the stump pains described by S. Weir Mitchell in his "Injury to the Nerves." Domestic infelicities resulted in a divorce. Irritability was the most prominent effect of drinking in his case. Became paralytic after a head injury.

G., brigadier general, United States Volunteers, during the civil war was shot in left temple, drank incessantly, and was abandoned by his friends, became a steamboat roustabout, and died from alcoholic poisoning.

D., captain, United States Army, eye shot out and frontal brain injured in battle; thrice court-martialed, and finally cashiered for drunken offenses. His record for bravery was cited in mitigation, but the head injury was not once mentioned as a cause of his drinking.

T., clerk, overworked, drank to excess, and with medical assistance became an abstainer; but great general debility became apparent which the liquor had previously masked. He belongs to the large degenerate or phrenasthenic class, having inherited physical and mental decrepitude. In many such cases the abstinence is supposed to be the cause of the debility, whereas it is congenital.

S., editor, pseudo-paretic dementia from alcoholism, recovered after asylum treatment one year; being sixty years old, is less active than when drinking.

C., salesman, dipsomaniacal attacks three years apart.

L., railway official, dipsomaniacal attacks fifteen years apart.

L., hypochondriacal after hard drinking.

B., became epileptic after recovery from alcoholism.

B., female, addicted to beer in large quantities; her husband sought divorce on grounds of drunkenness, but attorney W. S. Forrest, of Chicago, interposed plea that the drunkenness was a disease, and Judge Windes accepted the defense as favorably as the laws enabled him to do, and suggested that if the husband had known that drunkenness was a curable disease it would have been his duty to attempt treatment before applying for divorce.

B., physician, for thirty years had squandered from $10 to $30 daily on wine and spirits; was eminent in his profession, but gradually lost his business while retaining much former ability; had groundless delusions of marital infidelity and abused his wife shamefully; during despondency induced by a tongue cancer and long period of sobriety he killed himself with morphine.

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J., cook, on a voyage where he could not procure liquor for six months was efficient and of good disposition, but predicted his relapse, as nothing could keep him sober when he could get alcoholics; was drowned accidentally while drunk.

W., railway capitalist, drank on an average from a pint to a quart of whisky daily for thirty years; was never known to be drunk; and died at age of seventy years, with business ability intact.

G., father inebriate, who committed suicide after business reverse; patient was naturally much debilitated and experienced relief from alcohol, but was morally, though not physically, repugnant to its use; the taste was not disliked; persists in abstaining until required to take stimulant by physician, and invariably stops the liquor after the greater temporary need for it has passed. An instance of tolerance and mental repugnance.

S., saloon keeper, steady drinker, liver cirrhotic, dropsical for ten years, concealed delusions of wife's unfaithfulness expressed when drunker than usual.

E., physician, trance states recurred so frequently he was frightened into a special study of remedial means, resulting in full recovery.

H., bookseller, good business ability, struggled hard against habit, would abstain for a month, but invariably relapse; is now in the metaphorical gutter.

N., six months after beginning to drink was seldom sober.

M., lawyer, liver cirrhotic, alternated two weeks each of drinking and sobriety. In one of his sprees gave away his watch and purse; abstained three months from the impression made; under treatment he abstained five years, and relapsed after a slight business reverse; died from overdose of morphine, to which he became addicted.

B., physician, alcoholophile. Nothing avails to keep him sober. Overstudy is said to have caused the disease.

R., lawyer, drank to excess twenty years, and when regarded as hopeless recovered under treatment, and has remained sober the past ten years.

W., board of trade operator, after an exciting "deal" began heavy drinking, lost money, friends, and business ability.

E., architect, dipsomaniacal attacks yearly or oftener, with epileptic amnesic beginnings; has an epileptic daughter.

Cheyenne Indian chief found a barrel of whisky at night outside the fort sutler's door, and drank himself to death before morning.

Party of Sioux Indians opposite Fort Sully stole kegs of whisky, and fought all one night among themselves till half the band was killed or wounded.

P., clerk, would steal money during dipsomaniacal attacks to purchase liquor, but was perfectly trustworthy when sober.

O., farmer, three days before dipsomaniacal attack he dreams of being drunk.

K., laborer, injured in back of head many years before, suffered from delusions of persecution, and was easily angered; had an altercation with a friend at a wake where much whisky was drank; slept that night and in the morning hunted his friend up and shot him, claiming no recollection of the killing. State's Attorney Kern was satisfied of the insanity of the prisoner, and he was not prosecuted.

W., printer, hard drinker many years, grew violently insane, destroyed furniture, assaulted wife murderously, was sent to an asylum, where he grew gradually demented and died.

A., saloonkeeper and politician, steady hard drinker, suddenly developed abusive hallucinations of hearing. Of interest as the main symptom of beginning of alcoholic insanity, in his particular case.

Mrs. N. Her father was an alcoholic, and she had a liking for liquor which became intensified at her climacteric period, when she became hysterical, with some symptoms of alcoholic insanity, particularly jealous delusions concerning her husband. A fright had intensified matters. She recovered in an asylum within a year. The complication of heredity, shock, hysteria, climacteric, and alcoholism are noteworthy in this case with the evidence in recovery that the insanity was toxic, and not organic.

R., saloonkeeper, syphilitic; stopped whisky drinking and resorted to opium; developed delusions of persecution, obstinacy, and other commingled symptoms of syphilitic and alcoholic insanity; rapidly passed into terminal dementia.

R., musician, patient at county asylum ten years, chronic alco-

holic insanity; was very useful as pianist; obliging, easily managed, memory impaired, faint delusions. Grand jury members insisted upon his liberation as not insane, when he chased his family into the street with an ax, smashed his piano, and tore up his music. He died at the Dunning Institution.

G., gardener, chronic alcoholic insanity; worked faithfully and appeared intelligent at the state asylum several years until his wife insisted upon taking him home. That day he attempted to murder her for alleged unfaithfulness. He had tried very hard to hide his delusions while at the asylum, not altogether successfully. He dates his furious outbreaks from an attack of erysipelas; previously he says that he did not "get crazy when drinking."

K., a case of combined alcoholism and katatonia, at the county asylum.

V., a recovery from mania with relapse from drinking.

S., chronic alcoholic insanity, useful in asylum until overworked or affected by the sun; occasionally secured liquor, when he became violent; usually industrious and an efficient nurse for the sick; very garrulous and easily excited; has escaped several times, but is each time returned maniacal.

N., soldier, combined traumatic and alcoholic insanity, delusions of persecution; continually abused invisible enemies; attempted suicide by cutting his throat; occasional furors, in which he yelled, "Hurry up the ammunition wagon;" fancied himself in battle; after seven months in the asylum he dropped dead; there were numerous extravasations in the brain membranes, and evidences of inflammatory brain conditions.

W., chronic alcoholic insanity; was in a state asylum and discharged recovered, subsequently became apoplectic and paralyzed on one side; a son succeeded in securing a deed from him for all his property, leaving several sisters (daughters of the patient) destitute. Chancellor Tuley inveighed against the law which prevented him from undoing the result of the son's undue influence.

R., blacksmith, chronic alcoholic insanity; he endeavored to secure $2,000 belonging to his minor child, after his release from the state asylum. He made plausible statements in the courtroom, where his application was contested by his wife, and during

the examination his delusions of persecution appeared. He charged his wife with unfaithfulness and with attempts to poison him; he stated that at night men would come to his room with a "battery" with which they mesmerized him. He had been in numerous rows through accusing people of persecuting him. I advised his reincarceration as a dangerous lunatic, but the county judge said there was no legal provision for so doing. A few months later he called for Dr. Wilder to come to his house, and shot him dead without provocation or warning. He was sent to the Chester, Illinois, Asylum for the Criminal Insane.

McP., chronic alcoholic insanity; eyes and skin yellow with icterus, hepatic and kidney cirrhosis, dropsical, suspicious, abusive; claimed that attempts had been made to poison him by his mother, whose life he threatened; accused her of stealing his money, a groundless accusation, as he had none. He managed to make a plausible defense, but testimony against him was too strong. He was committed to a state asylum, but was soon after improperly liberated by an inexperienced superintendent. The patient hunted for his mother with the expressed intention of killing her; she was compelled to leave the state and secrete herself from him.

CHAPTER XIII.

LEGAL CONSEQUENCES OF ALCOHOLISM.

Though sixteenth century criteria are still propounded in legal text-books, and nominally applied in the trial of criminal cases involving drunkenness, the law as to the responsibility of the inebriate has been modified by advancing medical knowledge to an extent of which most lawyers and physicians are unaware.

Definitions of drunkenness are apt to take a wide range, and to include either too much or too little. The following is a recent attempt: "A person is drunk in a legal sense when he is so far under the influence of intoxicating liquor that his passions are visibly excited or his judgment impaired."[1] A little reflection will make the insufficiency of that description apparent. Judgment may or may not be impaired; and there may be depression, instead of exaltation, during drunkenness, the results of which may bring the inebriate to trial.

In recognition of the difficulty of definition it was held that the remark, "But you can define it as well as the court,"—was not such as to mislead the jury as to the definition of an habitual drunkard.[2]

That a person may be drunk and the fact not be apparent is recognized in the quotation: "The offense of a licensed person 'selling any intoxicating liquor to any drunken person,' under § 13 of the (English) licensing act of 1872 is committed by a sale to a person who is drunk, although he show no indications of insobriety, and neither the licenseholder nor his servants notice that he is drunk."[3] A dipsomaniac, if prevented from obtaining liquor, may be affected and may act as though drunk. And drunkenness, or its general appearance, may be caused by other things than intoxicating liquor. "Arrested in a public place, kept in custody till sober, and then brought before a court of justice, he may be able to show that the intoxication, which he

[1] 6 Am. & Eng. Enc. Law, p. 35.
[2] Rude v. Nass, 79 Wis. 321.
[3] Cundy v. Le Cocq, 53 L. J. M. C. N. S. 125.

admits existed, was produced by some other cause or means than the voluntary use of intoxicating liquor. If he does this, he is entitled to acquittal and discharge."[1] Emphasizing the word "voluntary" in the decision restricts its meaning, however, to what was probably intended.

It may be questioned if over-susceptibility induced by a head injury, or the impurity of the liquor taken, or some disease, is not often the direct cause of intoxication which is altogether out of proportion to the amount of liquor taken. Drinks are sometimes purposely drugged, with criminal intention as to the drinker; and it is notorious that adulterations of liquor cause unexpected results varying from unpleasant feelings to fury or coma.

The rule that drunkenness is no excuse for crime has been rigidly and generally applied in England and America. Some European countries, as cited by Ray,[2] are much more lenient, and French jurists[3] especially contend for milder principles, and construe their Penal Code, art. 64, which declares insanity, without distinction of any kind, to be a ground of entire exculpation, as justification for the admission of drunkenness which produces a temporary insanity, as a ground of extenuation. Juries there have not failed to avail themselves of the suggestion. But in all countries, including our own, courts have differed widely on the question whether drunkenness is an excuse, often in spite of statutes or common-law construction. "Voluntary drunkenness" has been made the basis of the fallacious theory that as the act of drinking is voluntary the person is responsible for what he does. An act that unintentionally leads to crime is confused with acts deliberately designed; and, as Ray notes, this confusion of moral and legal distinctions is not overlooked, but acknowledged and defended. In short, the law deliberately takes immoral, unscientific, and unjust grounds in justification of the results. It may be safely asserted that its assumption in this instance is productive of far-reaching and innumerable instances of injustice and confusion, as in every other attempt to ignore facts

[1] Com. v. Coughlin, 123 Mass. 437.
[2] Med. Jur. 450.
[3] op. cit. 451.

for any ulterior purpose, good or bad. The admission that drunkenness in the vast majority of cases is a disease (and sooner or later that acknowledgment will appear in judicial dicta) might seem too dangerous from a legal view; but the fact that it is demonstrably a disease in many cases exists regardless of what any class or profession may think. It is not so long ago in the world's history that insanity was not legally or otherwise regarded as a diseased condition. It was at one time punishable by English custom. The earliest provision made for the custody of lunatics was under the vagrant act of 1744; and there is a record of the constable of Great Staughton, Huntingdonshire, entering a charge of 8s. 6d. "for watching and whipping a distracted woman." Shakspeare's Rosalind mentions the "dark house and the whip with which madmen are punished." It would have been regarded as a very dangerous precedent in those days to admit that insanity was a disease. It was a phase of the crime of vagrancy, as drunkenness is often regarded to-day, and feigning would have made excuse for idleness and worse crimes possible. Insanity is simulated in attempts to evade the consequences of crime. It would be just, moral, and scientific to admit, in the light of modern research, that drunkenness is a disease, and rely upon our growing knowledge to determine whether the defense is improperly set up.

It often occurs that admissions of various kinds of natural phenomena are attended with some inconvenient results; but that outcome does not alter the truth, whether admitted or not. The fact that water flows down hill might be taken advantage of to evade the law, but is the law any safer if it denies the fact? It would be much more dignified and sensible to face the fact, and inevitably the new order of things would be found to be simpler, and vastly better for all. "Two wrongs do not make a right" is an old maxim, lost sight of by those who advocate falsehood for fear that evil consequences will follow admission of the truth. The law would not allow any culprit to benefit by a similar policy on his part.

Then, the one who voluntarily makes himself drunk for the purpose of committing crime is constantly confused in legal procedure with one who voluntarily drinks and commits crime which he did not premeditate when sober. A sensible construc-

tion of the common law would be that the former was the more culpable, if not the only culpable, person of the two.

Ray suggests that drunkenness should be divided, with reference to its moral and legal character, into three kinds: the *dolus*, or criminal, the culpable, and the inculpable.

The law of England distinguishes clearly between *culpa* and *dolus*, fault and intentional injury or crime, with reference to other considerations than drunkenness: "If a person who enters a stable with a lighted candle not properly protected, and carelessly drops it into a haymow, whereby the building is destroyed, is not deemed guilty of arson, no more should one who, in a fit of drunkenness, kills a fellow being without any previous intention so to do, be deemed guilty of murder. True, the fault of drunkenness is far greater than that of carelessness, and consequently should be punished with proportionate severity; but the difference is one merely of degree. The doctrine of the common law would have a shadow of support, if drunkenness were really a crime of some magnitude; but it is not so regarded by the laws of England, and in most parts of this country it is no crime at all. The free, unembarrassed use of the reasoning powers is essential to responsibility; but while the contrary conditions of these powers in insanity absolves its subjects from the legal consequences of crime, it is not permitted to have the same effect when produced and accompanied by drunkenness. It does not seem to be a sufficient reason for this distinction, that in the latter case the loss of moral liberty is the voluntary act of the party, while in the former it is the effect of disease. In the first place, the only object which the drunkard has in view is animal enjoyment; for the loss of his reason, though a certain result, is not the motive for his indulgence; and, secondly, the very insanity which is admitted in excuse for crime may be, as in a very large proportion of cases it really is, the result of habits of drunkenness in which the party has voluntarily persisted. Where the moral guilt is very nearly, if not precisely, equal, it seems unjust that the legal consequences should differ so widely as they do in regard to criminal acts, according as they are committed under the influence of drunkenness or of that insanity which may be one of its direct results."[1]

[1] Ray, Med. Jur. § 455.

"If previous to the drunken fit there were no design nor malice, which is essential to murder, we are obliged to suppose that it arose in the mind after it had been brought under the influence of drunkenness. But a mind which has lost the use of its reasoning powers cannot, without an unwarranted abuse of language, be deemed guilty of originating the feeling of malice." In a case where the defendant was tried for murder committed in a fit of intoxication, and where the circumstances precluded the idea of previous intention, it was suggested by the court as worthy the consideration of the jury, that, "as drunkenness clouds the understanding and excites passion, it may be evidence of passion only, and of want of malice and design."[1] It scarcely need be added that the accused was convicted of murder, or that an eminent jurist, in commenting on the opinion of the court, should characterize it as a rather refined and hazardous speculation.[2] Juries, however, both in this country and England, are beginning to think otherwise. In some recent trials in England the court held that the fact of drunkenness had an important bearing on the question of intention.[3]

The apprehension that men will intentionally make themselves drunk for the purpose of committing a crime with impunity has hardly a shadow of a foundation. In the first place, the existence of the previous intention is liable to be detected; and even if the accused be successful in concealing it, and his plea is admitted, the penalty will be severe at the very best, for the drunkenness is merely a ground of extenuation. We need not apprehend, therefore, that men would abandon the ordinary method of committing crime, in secrecy and silence, for one that is sure to be followed by severe punishment, perhaps the very punishment they would avoid.

Inculpable drunkenness is that which occurs without any fault of the party, and consequently renders him irresponsible for whatever acts he may commit while under its influence. The common law recognizes but two ways in which it can be produced, *viz.*, by the unskilfulness of the physician, or the con-

[1] Pennsylvania v. M'Fall, Addison (Pa.) 257.
[2] 21 Am. Jurist, 7.
[3] Reg. v. Cruse, 8 Car. & P. 541; Ray, Ibid. § 456.

trivance of enemies.[1] Ray suggested two other ways, at least, in which it may be produced: The drinker may drink no more than he has habitually taken without becoming intoxicated, but the liquor, from some cause unknown to him at the time, is much stronger than usual; or without any change in its quantity or quality, it exerts an unusually potent effect on the brain, in consequence of some pathological conditions. Head injuries, overheating, sunstroke, an occupation such as furnace feeding or cooking may and do, not only dispose to liquor indulgence, but slight quantities often affect such persons unduly, and produce maniacal furies in some, even though insanity has not previously existed.

Jurists could study to advantage the effect upon criminality of the leniency of Austrian and German procedure upon this point. Ray cites several cases. The earlier American cases, such as the widely cited Federal cases of Drew and McGlue, and, indeed, too many later reports, lack the details necessary to enable us to distinguish between delirium tremens and chronic alcoholic insanity or to determine whether head injury were not an overlooked and most important factor. Many traumatic and chronic alcoholic insane would appear to the multitude to be rational, because experience and trained observation are often required in the detection of such derangements.

It is such a well-settled rule of the common law that voluntary drunkenness does not excuse a crime committed while in that state that citations would fill pages; and even where mitigating circumstances arise, or a reduction of the degree of crime is granted, the decision is almost invariably prefaced with the words, "Drunkenness is no excuse for crime."

Wherever in this work it is urged that the drunkard is held to too rigid an accountability it must not be construed as an attempt to shield criminals as such, either sober or drunk; but previous good character should not be set at naught, and all drunkards should not be put upon the same plane.

Drunkenness as an aggravation of an offense. Coke's exposition of the English common law[2] produced many judicial *dicta*

[1] 1 Russell, Crimes, 8; Bartholomew v. People, 104 Ill. 605, 44 Am. Rep. 97 (1882); Rev. Stat. 1874, ⅁395, 19.

[2] Co. Litt. 48.

to this effect;[1] but as an instance of a tendency to more enlightened views, the case of *McIntyre* v. *People*[2] may be cited, wherein the supreme court, passing upon such an instruction by the court below, says: "How it can aggravate a wilful, deliberate murder, perpetrated with malice preconceived, and deliberately perpetrated, we are unable to comprehend. Or that it will aggravate what in law is only manslaughter if perpetrated by a sober man, into murder if committed by a drunken man, is not, we conceive, true. Or that it increases a minor offense to one of a higher grade is not true. While it is not ground for reversing a judgment, it is perhaps calculated to prejudice the defendant's case; and a court might well omit to give it, or at least modify it before it should be given."

In *Ferrell* v. *State*[3] the court was criticised for refusing appropriate instructions, and charging that drunkenness was an aggravation of the crime. This charge the supreme court held as error, as "in effect telling them [the jury] if the defendant was intoxicated he might properly be convicted of a higher grade of offense than the facts otherwise required; for it will be observed it is the offense, and not its penalty, which the court tells the jury is aggravated by appellant's intoxication. . . . The law of this state gives no warrant for any such doctrine. While intoxication is certainly no excuse, much less justification, for crime, it is a startling idea that the bare fact of one's being in this condition when the homicide is committed converts murder in the second degree into murder in the first degree, or will authorize, if not require, the jury to impose the penalty of death or confinement in the penitentiary for life, instead of a term of years. This would be directly the reverse of the rule laid down by the Code, and would make the fact that the homicide was committed when the perpetrator was incapable of a deliberate intention and formed design to take life, or do other serious bodily injury, for want of a sedate mind, an aggravation, instead of a mitigation, of the heinousness of the offense. The correct rule upon the subject is that, although drunkenness neither aggravates nor excuses an act

[1] Com. v. Hart, 2 Brewst. (Pa.) 546 (1868); United States v. Forbes, Crabbe, 559 (1845); United States v. Claypool, 14 Fed. Rep. 127 (1882); etc.

[2] 38 Ill. 515 (1865).

[3] 43 Tex. 503 (1875).

done by a party while under its influence, still it is a fact which may affect both physical ability and mental condition, and may be essential in determining the nature and character of the acts of the defendant, as well as the purpose and intent with which they are done. Evidently, therefore, the fact of intoxication at the time the matter in question occurs may be a fact of little or no significance, or of the utmost importance, as it may connect itself with or be shown by the other facts to bear upon or enter into the case. As mere drunkenness does not relieve a party from responsibility for crime, when the nature and degree of it do not depend upon the state and condition of the mind at the time of its perpetration, the fact of intoxication is of little or no importance in cases of this kind. But in the class of offenses in which criminality depends solely, or to a certain degree, upon the state and condition of the mind at the time the wrongful act is done, evidence of the state and condition of the mind, showing ability or inability of the mind to form or entertain a sedate and ordinate criminal design, is certainly of the most vital importance. *People* v. *Eastwood*, 14 N. Y. 562; Bishop, Crim. L. 300 *et seq.* If the testimony shows the killing is upon an antecedent grudge or pre-existing malice; that it is the result of a sedate, deliberate mind and formed design not engendered in an intellect clouded and confused by the fumes of liquor; or where the deceased, though slain by his assailant while the latter is under the influence of liquor, if it appear that it was taken merely to nerve himself to carry into execution his preconceived purpose,—the fact of intoxication is of no importance, unless it aids to show more fully and distinctly the pre-existing design in furtherance of which it has been used. But where there is no evidence of premeditation, or any reason to suppose that the act done is not the result of a design formed, as far as the mind may be capable of forming a design while in a state of intoxication to such an extent as to be incapable of cool reflection, the fact of intoxication is then of the utmost importance; for if it is clearly shown that the purpose to take life has its inception and was carried into effect while the defendant is in a state of mental confusion, whether from drink or other cause, which renders him incapable of calm reflection or of forming a deliberate design to take life, the offense committed cannot be murder in the first degree."

Mitigating circumstances, it was held,[1] might be admitted. That while "the voluntary drunkenness [of a murderer] neither excuses the offense nor mitigates the punishment, . . . one in a state of voluntary intoxication is subject to the same rule of conduct, and to the same rules and principles of law, that a sober man is; and that where a provocation is offered, and the one offering it is killed, if it mitigates the offense of the man drunk, it should also mitigate the offense of the man sober," and on the question of malice evidence of the prisoner's intoxication is admissible.

The statement in the foregoing decision, that the intoxicated person "is subject to the same rule of conduct, and to the same rules and principles of law, that a sober man is," enables us to construe the last part of the wording: if it mitigate the offense of the man sober it should mitigate the offense of the man drunk.

Delirium tremens, or mania a potu, may excuse or palliate a crime.

Against the *dicta* of older law writers, who sought to include delirium tremens with other effects of voluntary drunkenness, it is urged (1) that delirium tremens is not the intended result of drink in the same way that drunkenness is; (2) that there is no possibility that delirium tremens can be voluntarily generated to afford a cloak for a particular crime; (3) that, so far as the original cause is concerned, it is not peculiar in being the offspring of indiscretion or guilt, for such is the case with almost every species of insanity.[2]

In the leading American case, Alexander Drew,[3] captain of a whaling ship, in 1827, killed his second mate, Clark. It appeared in evidence that Drew was benevolent and humane, though a hard drinker. After recovery from a debauch he resolved to drink no more, and all the liquor on board was thrown overboard. In two or three days after he lost his appetite, was unable to sleep, and manifested various hallucinations, with fears of being pursued. He grew abusive and obscene, and would alternately pray and swear. He attempted suicide, and later killed Clark, and for

[1] Shannahan v. Com. (1871) 8 Bush, 463, 8 Am. Rep. 465.
[2] 1 Wharton & Stillé, Med. Jur. 203.
[3] United States v. Drew, 5 Mason, 28.

some weeks after appeared insane. Upon recovery he remembered nothing of the matter. Justice Story, of the United States circuit court, held that Drew was not intoxicated at the time, though the delirium was the result of exhausting antecedent gross and habitual drunkenness, and that insanity is a competent excuse in such a case. Had the crime been committed when Drew was in a fit of intoxication he would have been liable to be convicted of murder.

"The law looks to the immediate and not to the remote cause; to the actual state of the party, and not to the causes which remotely produced it. Many species of insanity arise remotely from what in a moral view is a criminal neglect or fault of the party; as from religious melancholy, undue exposure, extravagant pride, ambition, etc. Yet such insanity has always been deemed a sufficient excuse for any crime done under its influence." The jury returned a verdict of not guilty. The causes of insanity mentioned by the judge are incidental symptoms, as a rule, mere effects of insanity. Such and other considerations are at times judicially confused, as bearing for or against a prisoner. For instance, habitual drunkenness, the *voluntarius dæmon* of Coke, it is well known to physicians and jurists, may be created by causes that produce recognized forms of insanity; but this fact is not allowed in extenuation in cases of crime committed by drunkards, as such.

Admitting the difficulty of simulating delirium tremens, we may still say that it might be easier to commit a murder in an assumed frenzy alleged to arise from abstinence after habitual indulgence, than it would be while drunk to commit murder that had previously been planned when sober.

Ray cites the case of Wilson, who was acquitted of the crime of murdering his wife while insane from alcoholism, the court charging the jury that it was not material for them to determine the species of insanity with which the prisoner had been afflicted, if they were satisfied of the fact of its existence. Birdsall, who murdered his child, was found guilty, his sentence was commuted, and he became permanently insane. The "right and wrong test" of insanity was the cause of the verdict. The jury concluded that the accused was capable of distinguishing right

from wrong, probably because others who knew as little of insanity as themselves testified that immediately after the murder "he talked so rationally that they could not believe him deranged."[1] This suggests that, as there are so many alcoholic murders which appear to be insane ones, a lapse of time and unbiased observation are necessary in order to determine whether the accused is actually and permanently insane, as every experienced asylum physician knows that superficial and lay opinion is worthless in such cases, and even the off-hand opinion of an expert would be of no value, as it could not be conscientiously formed or defended.

The point raised, that Birdsall knew from previous experience that he would become insane if he drank, is of less medical importance than the probability that he had no ability to resist the desire to drink. This is often so overwhelming and the will power is so paralyzed as to leave no question of responsibility in the mind of one familiar with such cases of alcoholism, particularly where recurrent insanity is acknowledged.

The widely cited case of *United States* v. *McGlue*,[2] defended by Rufus Choate, hinged upon the question of delirium tremens, which, though "the product of intemperance, and therefore in some sense is voluntarily brought on, yet it is distinguishable, and by the law is distinguished, from that madness which sometimes accompanies drunkenness. If a person suffering under delirium tremens is so far insane as I have described to be necessary to render him irresponsible, the law does not punish him for any crime he may commit. But if a person commits a crime under the immediate influence of liquor and while intoxicated, the law does punish him, however mad he may have been." So held Curtis, J. The prosecution did not prove that this insanity was the direct and immediate effect of drunkenness, and therefore the plea of insanity was not vitiated, though it was not shown beyond dispute that the case was one of delirium tremens. There is more evidence of some other form of insanity complicated with alcoholism than of delirium tremens; and the reports of the trial sustain even the theory of the frenzy of simple drunkenness.

[1] Ray, Med. Jur. 465.

[2] 1 Curt. C. C. 1; 2 Lawson, Criminal Defenses, 54.

Insanity from habitual drunkenness is an excuse for crime.

In *Roberts* v. *People*,[1] it was held that insanity occasioned by voluntary intoxication will not excuse where the person is aware of his liability to insanity from the cause, and has sufficient mental capacity to form an intent. Experienced and conscientious asylum physicians would hesitate to express an opinion as to whether one who was subject to attacks of insanity had any volition as to drinking.

Drinking is very often the first symptom of insanity, and in many cases is a mere effect thereof, rather than a cause. If, as often happens, the first paroxysms are accompanied by drinking, it is a question whether the drunkenness is not a mere episode or aggravation of the insanity. Certainly, in dipsomania during the drunken excesses there is insanity, whether liquor be taken or not; and though the patient may fancy that it is the liquor that makes him insane it is not necessary to accept the opinion of a periodical, or any other, insane person, as to the cause of his insanity. The insane are apt to be wrong in such conjectures, or to adopt opinions expressed by others, which are also liable to be erroneous.

Head injuries sometimes occasion epileptic, irresponsible impulses. Such sufferers often do not know when or why they began drinking; and it is well worth considering whether a large percentage of this class, as well as chronic alcoholics, who are apparently sane in the intervals of drunken crazy spells, are not continuously, permanently insane and their will power hopelessly impaired, although their attacks of frenzy are the only ones recognized.

Reduction of the degree of crime may be secured by showing drunkenness. Intoxication is relevant on the questions of deliberation and premeditation.

Wharton's American Law of Homicide states:[2] "Intoxication, when existing to a sufficient extent to prevent deliberation, lowers the offense to the second degree, excepting the case of murder which happens in consequence of actual or attempted arson, rape, robbery, or burglary. Says Judge Lewis, now of

[1] 19 Mich. 401.

[2] p. 369, 1 W. & S. Med. Juris. § 214.

the supreme court of Pennsylvania: A deliberate intention to kill is the essential feature of murder in the first degree. When this ingredient is absent, where the mind, from intoxication or any other cause, is deprived of its power to form a design with deliberation and premeditation, the offense is stripped of the malignant features required by the statute to place it on the list of capital crimes; and neither courts nor juries can lawfully dispense with what the act of assembly requires."

The oscillations of the English law are observable in the case of *Rex* v. *Grindley*[1], in 1819. Justice Holroyd said that "though voluntary drunkenness cannot excuse from the commission of crime, yet where, as upon a charge of murder, the material question is whether an act was premeditated or done only with sudden heat and impulse, the fact of the party being intoxicated has been holden to be a circumstance proper to be taken into consideration." Sixteen years later this ruling was cited to Park, J., by the counsel for the prisoner in *Rex* v. *Carroll*.[2] There the prisoner was indicted for the murder of Elizabeth Browning. Park, J., in instructing the jury, referring to the ruling of Holroyd, J., in *Rex* v. *Grindley*, said: "Highly as I respect that late excellent judge, I differ from him, and my brother Littledale agrees with me. He once acted upon that case, but afterwards retracted his opinion, and there is no doubt that that case is not law." The prisoner was found guilty and executed.

In *People* v. *Hammill*[3] the court said: "We know that intoxication produces more effect upon the nervous system of some than of others. It clouds and obscures the judgment of one more than it does another. It produces greater extravagance of exertion and action in some than it does in others, and sometimes consequences result, from such extravagant exertion and action, of which the party himself had no idea. All these things are to be considered by this jury when determining upon this question of intent. . . . Where the intent to kill is clearly proved, if that is the only question, then character avails nothing in defense. Wanton killing is as much murder in the virtuous as in

[1] 1 Russell, Crimes, p. 8.
[2] 7 Car. & P. 145 (1835); Lawson, Criminal Defenses, 758.
[3] 2 Park. Crim. Rep. 223 (1855).

the vicious. But where the intent is not certain, when the minds of the jury feel that the scales are nearly poised, then the jury may do that which the prisoner humbly asks them to do here, throw the weight of his good character into the scales and thus secure a preponderance in his favor. In cases not free from doubt the law allows it." The jury found a verdict of manslaughter in the second degree.

Confessions secured by drunkenness induced by another are not vitiated;[1] yet common-law expounders mention the necessity of proper means being taken to secure confessions.

False confessions are occasionally made by inebriates, a notorious instance being related of a clergyman who confessed publicly to matters which were not true.[2]

That a person was intoxicated when he made a confession goes only to the weight of the confession, and not to its admissibility.[3]

False accusations made by inebriates are often based upon their delusions, illusions, or hallucinations. The most common false accusation made by inebriates is against the chastity of their wives; and wife murder is a frequent result of the insane conviction of chronic alcoholics that their wives are unfaithful, though there may be absolutely no warrant in facts for the belief.

Erotic hallucinations and delusions sometimes have their origin in the use of anæsthetics or alcohol; and this fact should be given due weight in determining the truth of allegations of rape or insult under such circumstances. Witthaus and Becker[4] call attention to this peculiarity. Dentists have been made the special victims of false accusations by females who have been anæsthetized.

Absence of reasonable motive characterizes the commission of many offenses by drunkards,—such as destructive tendencies, with prodigality and waste, as in throwing away or burning up money. As Dr. L. D. Mason says,[5] though the acts of the confirmed inebriate may fill every grade of crime from petty theft to homicide, yet he is incapable of those criminal acts that call for

[1] 1 Greenleaf, Ev. 229; Rex. v. Spilsbury, 7 Car. & P. 187.
[2] Quarterly Journal of Inebriety, Jan. 1892, 75.
[3] State v. Grear, 28 Minn. 426 (1881); Com. v. Howe, 9 Gray, 110 (1857).
[4] 2 Medical Jurisprudence, Toxicology, and Forensic Medicine, 451.
[5] Quarterly Journal of Inebriety, Jan. 1892, 28.

shrewdness and mechanical skill, involving, as they do, the maturing of long-continued plans, well laid, and aptly executed, such as professional burglary, systematic forgery, etc. The burglar and forger may drink liquor, but they have the fullest exercise of their mental faculties and the ability to use liquor moderately so that reason is not clouded. The inebriate generally acts without the motive, deliberation, caution, and concealment of the criminal who is in a normal mental and physical condition. Employers object to their employees drinking intoxicants as productive of unreliability, irresolution, incapacity, and general neglect of mutual and individual interests. Drinking is sometimes more apt to divert from a contemplated crime than to originate one, even though malice and a grudge pre-exist, or the execution of revenge may be prompted by the liquor without previous intention existing. Drunkenness may be the cause of both intent and act.

In *Com.* v. *French*[1] the court remarked that "few crimes are committed by persons who are habitually temperate in the use of ardent spirits." Without criticising this *dictum* further than to suggest that successful criminals, especially gamblers, avoid drinking, evidently it is the drunkenness that betrayed the stupid crime that is punished in the person of the culprit. So, criminals have every inducement held out to them to be sober, as their crimes are less likely to be detected; but it would be absurd to hold the sobriety of a criminal an aggravation of his offense because it makes him all the more dangerous to the community.

The remissness of the state in preventing drunkenness is paralleled by carelessness in public hygiene and in providing no adequate isolation for smallpox cases. Thousands of such patients have died from exposure after being refused admittance to hospitals, when there was no place for them elsewhere.

The utter failure of jail commitments to reform the habitual drunkard is one of the commonest experiences of magistrates; and this shows that "uncontrollable thirst" is a disease, and that punishment of the victims of such addictions is about as rational and humane as the old practice of whipping maniacs, or the Indian method of abandoning sick and aged persons to the

[1] Thacher, Crim. Cas. 163.

wolves. Medically, inebriety itself is often, if not always, evidence of mental unsoundness, or a symptom, at least, of disease. The unreason and want of control reprehended in the drunkard is often exhibited, in a different way, by the sober condemnors of inebriates, in and out of court rooms. Instead of continuing against inebriety the vigorous measures that were formerly in vogue against all kinds of lunacy, the state should treat drunkenness as a pestilence, and abate it by every humane means. Smallpox and drunkenness cannot be remedied by slaughter, direct or indirect, such as results from their legal neglect and harsh treatment.

The legal consequences of drunkenness in civil cases are less inimical to the interests of the drunkard, in the main, than when crime is involved. Story[1] states that "the common law of England has shown but little disposition to afford relief from any of the immediate consequences of drunkenness, either in civil or criminal cases. It has never considered mere drunkenness alone a sufficient reason for invalidating a deed or agreement, except when carried to that excessive degree which deprives the party of all consciousness of what he is doing. Courts of equity, also, have strenuously refused their relief in moderate drunkenness, unless it were procured by the contrivance of the other party, or were made the means of obtaining some unfair advantage." This doctrine prevails in both English and American decisions: First, that moderate drunkenness does not necessarily deprive the mind of the power of rational consent, is not always apparent to others, and ought not, of itself, to avoid any contract. Second, that, inasmuch as excessive drunkenness deprives a person more or less of the consciousness of what he is doing, and is perfectly obvious to everyone, all acts executed while in this condition may be avoided at law on the ground of incompetency, and in equity on that of fraud. Thus an attempt is made to guard equally the interests of the drunken party and those who deal with him.[2]

Testamentary capacity in relation to the effects of liquor is, in the main, reasonably dealt with by the law. The questions arising hinge upon the presence of a "disposing mind." Tacitly,

[1] Quoted by Ray, op. cit. p. 448. See also 1 Story, Eq. Juris. 12th ed. §§ 230–234.

[2] Ray, Med. Jur. 450.

drunkenness is regarded, in civil cases, as a disease, or species of insanity, particularly in the matter of will making. The manner in which drunkenness is discussed and regarded in chancery and probate cases may well be referred to when criminal proceedings involving drunkenness arouse vindictiveness and threaten injustice.

The supervisory and controlling laws of the general and state governments as to intoxicating liquor,—the restriction of its manufacture; the license, taxation, and regulation as nuisance of its sale; provisions for local option; and the sale to minors, intoxicated persons, and habitual drunkards,—should be amplified and more rigidly enforced.

In some states the seller is liable for personal injury sustained by violence induced by liquor,—as, when a wife has been beaten. Exemplary, as well as actual, damages are provided for in such cases and where a wife has been deprived of support by the squandering of her husband's money.

Such aspects of the liquor question are fully dealt with by J. D. Lawson and H. C. Black.[1]

Retreats for habitual drunkards were established in England under lunacy acts.[2] But these proved ineffectual, as drunkards did not incline to publicly declare themselves insane.

In 1870 a measure was brought before the House of Commons to provide retreats for habitual drunkards; and in 1872 a select committee was appointed to inquire into the medico-legal relations of habitual drunkenness, with the following results:

"That there is entire concurrence of all the witnesses in the absolute inadequacy of existing laws to check drunkenness, whether casual or constant, rendering it desirable that fresh legislation on the subject should take place, and that the laws should be made more simple, uniform, and stringent.

"That small fines and short imprisonments are proved to be useless, as well by the testimony of competent witnesses as by the

[1] Remedy of Injuries Arising from the Sale or Gift of Intoxicating Liquors, 1877.
Regulating Liquors, A Treatise on the Laws Regulating the Sale, &c., 1882.
[2] 30 & 31 Vict. c. 52, § 13.

fact that the same individual is convicted over and over again to even more than 100 times.

"That occasional drunkenness may, and very frequently does, become confirmed and habitual, and soon passes into the condition of a disease uncontrollable by the individual, unless indeed some extraneous influence, either punitive or curative, is brought into play.

"That self-control is suspended or annihilated, moral obligations are disregarded, the decencies of private and the duties of public life are alike set at naught, and individuals obey only an overwhelming craving for stimulants, to which everything is sacrificed.

"That the absence of all power to check the downward course of a drunkard, and the urgent necessity of providing it, has been dwelt upon by nearly every witness; and the legal control of an habitual inebriate, either in a reformatory or in a private dwelling, is recommended in the belief that many cases of death resulting from intoxication, including suicides and homicides, may thus be prevented.

"That this power is obtained easily, at moderate cost, and free from the danger of abuse and undue infringement of personal liberty, has been stated in evidence by quotations from American and Canadian statutes, as well as by the witnesses from America."

Finally, the habitual drunkard's act of 1879, and the inebriate's act of 1888, were passed, providing for voluntary admission of the drunkard to retreats, whereupon he can be legally detained for the time specified in his application, not exceeding twelve months. Agitation for an extension of the law is being made, with a view of arranging for compulsory detentions.

Norman Kerr, F. L. S., of England, writes: "It ought to be the work of legislation to confine inebriate criminals, not in prison for punitive purposes, but in suitable hospitals for the treatment of inebriety. Yes, I would suggest that in all criminal trials in which the alleged criminal act has been committed by an inebriate, there should be an investigation into the previous medical history of the prisoner. This might reveal a fall on the head, an attack of heat apoplexy, or some other accident or disease, which had been the starting point of a true intoxication mania. There should also be an inquiry into the family history, so as to eluci-

date the heredity with special reference to inebriety, insanity, or other neurotic affections. I think the legislature ought to fulfil a long-neglected duty to the victims of their legislation, and make adequate provision: First, for the compulsory seclusion and treatment of all diseased inebriates who have no will left to apply for voluntary admission to an institution. Second, for the prompt reception and detention of voluntary applicants without the forbidding ordeal of an appearance before justices. And third, for institutions for the proper care of the poor and for inebriates of limited means."[1]

An act of the general assembly of Maryland,[2] entitled "An Act To Provide for the Treatment and Cure of Habitual Drunkards," provides that any inhabitant of this state who is of kin to or a friend of an habitual drunkard may petition the circuit court for leave to send such person to an institution for the medical treatment of drunkenness, the expense not to exceed $100 per year, to be paid by the county or city of Baltimore, as the case may be.

At the January term of the court of appeals of Maryland, 1895, it was contended that the act is in conflict with the Constitution of this state, for that the legislature has no power to compel the city of Baltimore, without its consent, to tax its citizens for the treatment of habitual drunkards at an inebriate asylum. Judge Roberts delivered the opinion of the court that "a large part of human suffering is the almost direct result of drunkenness, and it is certainly to the interest of society to reduce this evil as much as possible. The establishment and maintenance of inebriate asylums can, therefore, be lawfully undertaken by the state. We think the legislature was possessed of ample power to deal with the subject-matter of the law, and that in what they did they in no respect violated any provision of the Constitution of the state or of the United States."

Habitual drunkard hospital laws, similar to that of Maryland, have been adopted in Colorado,[3] Louisiana,[4] North Dakota,[5] and other states.

[1] Quarterly Journal of Inebriety, Jan. 1892, 92.
[2] Chapter 247, passed Jan. Session 1894.
[3] Act March 31, 1893. (Sess. Laws 1893, chap. 100, p. 283.)
[4] July 12, 1894.
[5] March 6, 1895.

The Board of Managers of the National Home for Disabled Volunteer Soldiers, U. S. A.,[1] states that at Milwaukee, Hampton, Leavenworth, Santa Monica, and Togus, 2119 cases of inebriety had undergone special hospital treatment, with from 10 to 25 per cent of relapses, the others being apparently permanently cured. The Milwaukee Home reports 708 arrests for drunkenness less in 1894 than in the year previous.

The law in civil cases recognizes that disease and insanity are essential elements of inebriety, and full admissions are made to that effect, as in the case of *Duffield* v. *Morris*, 2 Harr. (Del.) 375, wherein Justice Harrington said: "Drunkenness itself is a species of insanity;" and in the testimony that influenced the recent parliamentary enactments of lunacy, habitual drunkard, and inebriate laws, which was unequivocal as to the irresponsibility of that class.

The common law in criminal cases is slow to emancipate itself from ancient customs of revenge. Savage retaliation is easier than mercy. At a time when lunatics were flogged, witches were burned, and some offenses less than forgery were held to be capital crimes, the common law was expounded in the words: "A drunkard who is *voluntarius dæmon* hath no privilege thereby; whatever ill or hurt he doth his drunkenness doth aggravate it."[2] Some future revolutionary decision will be based upon the opinion that in some cases, at least, disease, rather than volition, caused the "demoniacal possession."

Lord Coke's interpretation of the common law is gradually being ameliorated by supreme court opinion, charges of trial courts, and, still more frequently, by expedients of juries in their verdicts.

The excuse that advantage would be taken of a more humane construction of the common law has little, if any, foundation. The same fear is expressed where crime has been committed by and insanity of the criminal is alleged,—that the insanity plea is urged too often in extenuation of crime; but courts arrive at some kind of a conclusion where insanity is the defense; and,

[1] Report for Fiscal Year ending June 30, 1894, 53d Congress, 3d Session, Mis. Doc. 27, part 1.

[2] Co. Litt. 46, quoted by Ray, op. cit. p. 452.

similarly, were drunkenness in criminal procedure put upon the plane of insanity, just as it is in civil cases, more intelligent decisions could be secured and vastly less injustice would be done. It would not be very difficult to discover the probability that one had nerved himself with drink to commit a crime; and such cases could be set apart from those in which the accused had committed crime while intoxicated. The intent could be made a separate issue, as it is to some extent with regard to the crime, but as it is not made as to the drunkenness.

If the fact that drunkenness incites to crime in a large percentage of cases be set up in justification for repressive measures, then the law has simply mistaken the best means of repressing drunkenness. In these days we would hardly punish anyone for being poisoned or sick; but that is precisely the disposition that prevails, from police magistrates to supreme courts, so far as the disease of inebriety is concerned.

Commitment of habitual drunkards to retreats where an opportunity for recovery can be had, whether they are criminal or not, will eventually reduce the number of crimes committed by these unfortunates, and afford an opportunity for the restoration to health and sanity of many useful members of society.

Public control of the drunkard, and of those who are largely responsible for his condition and who foster and profit by it, would solve the entire question to such an extent that crime would be greatly lessened; and the community would be recompensed directly over and above the expense of such supervision; just as public schools benefit the people to a degree that renders their cost insignificant.

The law shirks responsibility for the drunkard, under present views of his culpability; but it would have to assume it, or rest under the charge of inhumanity, were he once fully declared, in criminal cases, to be a product of disease, as he is already regarded in equity.

CHAPTER XIV.

THE DECISIONS OF THE COURT AS TO ALCOHOLISM.

I. ALCOHOLISM AS AFFECTING CRIMINAL LAW.
- § 1. *Intoxication as an excuse for crime.*
- § 2. *When intoxication may be shown; generally.*
- § 3. *Larceny, burglary, etc.*
- § 4. *Homicide.*
- § 5. *Intoxication as affecting deliberation and premeditation.*
- § 6. *Assaults.*
- § 7. *Attempt to commit suicide.*
- § 8. *Involuntary drunkenness.*
- § 9. *Wilful drunkenness; insane tendencies.*
- § 10. *Insanity induced by alcoholism.*
- § 11. *Intoxication under the Texas statute.*
- § 12. *Intoxication of the person injured.*

II. ALCOHOLISM AS AFFECTING CONTRACTS.
- § 1. *What intoxication affects generally.*
- § 2. *Intoxication combined with fraud or undue influence.*
- § 3. *Discharge of employee for intoxication.*

III. ALCOHOLISM AS AFFECTING CONVEYANCES.

IV. ALCOHOLISM AS AFFECTING WILLS.

V. ALCOHOLISM AS AFFECTING GIFTS.

VI. ALCOHOLISM AS AFFECTING MARRIAGE.

VII. ALCOHOLISM AS AFFECTING DIVORCE.
- § 1. *Drunkenness as a ground for.*
- § 2. *Drunkenness as affecting cruel and inhuman treatment.*
- § 3. *Drunkenness as affecting desertion.*

VIII. ALCOHOLISM AS AFFECTING OFFICES AND PLACES OF TRUST.

IX. ALCOHOLISM AS AFFECTING THE STATUTE OF LIMITATIONS.

X. ALCOHOLISM AS AFFECTING INSURANCE.

XI. GUARDIANSHIP AND RESTRAINT OF ALCOHOLICS.
- § 1. *What drunkenness warrants.*
- § 2. *Inquisition of habitual drunkenness as evidence.*

XII. ALCOHOLISM AS AFFECTING NEGLIGENCE.

XIII. PROOF OF INTOXICATION.
- § 1. *Presumptions and burden of proof.*
- § 2. *Measure of proof.*
- § 3. *Proof of the fact of intoxication.*
- § 4. *General character and habits.*
- § 5. *Previous and subsequent intoxication.*
- § 6. *Acts, conduct, and declarations.*
- § 7. *Admissions and confessions.*
- § 8. *Opinions as to intoxication.*

XIV. INTOXICATION AS AFFECTING WITNESSES.

I. Alcoholism as affecting criminal law.

§ 1. *Intoxication as an excuse for crime.*

The rule is laid down generally by numerous cases that voluntary intoxication is no justification or excuse for crime.[1]

[1] Chatham v. State, 92 Ala. 47; Fonville v. State, 91 Ala. 39; Eaglehardt v. State, 88 Ala. 100; Carter v. State, 87 Ala. 113; Walker v. State, 85 Ala. 7; Morrison v. State, 84 Ala. 405; Gunter v. State, 83 Ala. 96; Williams v. State, 81 Ala. 1, 60 Am. Rep. 133; Ford v. State, 71 Ala. 385; Tidwell v. State, 70 Ala. 33; Ross v. State, 62 Ala. 224; Beasley v. State, 50 Ala. 149, 20 Am. Rep. 292; Mooney v. State, 33 Ala. 419; State v. Bullock, 13 Ala. 413; Cavaness v. State, 43 Ark. 331; Casat v. State, 40 Ark. 511; Chrisman v. State, 54 Ark. 283; People v. Ferris, 55 Cal. 588; People v. Williams, 43 Cal. 344; People v. Lewis, 36 Cal. 531; People v. Nichol, 34 Cal. 212; Pockett v. Sutter, 5 Cal. 412; People v. Blake, 65 Cal. 275; State v. Johnson, 41 Conn. 584; State v. Johnson, 40 Conn. 136; People v. Odell, 1 Dak. 189; State v. Till, Houst. Crim. Rep. (Del.) 233; State v. Davis, 9 Houst. (Del.) 407; State v. Harrigan, 9 Houst. (Del.) 369; State v. Thomas, Houst. Crim. Rep. (Del.) 511; State v. Hurley, Houst. Crim. Rep. (Del.) 28; State v. McGonigal, 5 Harr. (Del.) 510; State v. Dillahunt, 3 Harr. (Del.) 551; Harris v. United States, 8 App. D. C. 20; McCook v. State, 91 Ga. 740; Garner v. State, 28 Fla. 113; Vann v. State, 83 Ga. 44; Beck v. State, 76 Ga. 452; Hanvey v. State, 68 Ga. 612; Marshall v. State, 59 Ga. 154; Estes v. State, 55 Ga. 30; Choice v. State, 31 Ga. 424; Golden v. State, 25 Ga. 527; Henry v. State, 33 Ga. 441; Mercer v. State, 17 Ga. 146; Jenkins v. State, 93 Ga. 1; Crosby v. People, 137 Ill. 325; Upstone v. People, 109 Ill. 169; Rafferty v. People, 66 Ill. 118; McIntyre v. People, 38 Ill. 514; McKee v. Ingalls, 5 Ill. 30; Aszman v. State, 123 Ind. 347, 8 L. R. A. 33; Robinson v. State, 113 Ind. 510; Surber v. State, 99 Ind. 71; Goodwin v. State, 96 Ind. 550; Sanders v. State, 94 Ind. 147; Smurr v. State, 88 Ind. 504; Colee v. State, 75 Ind. 513; Fisher v. State, 64 Ind. 435; Gillooley v. State, 58 Ind. 182; Cluck v. State, 40 Ind. 263; Bradley v. State, 31 Ind. 492; Bailey v. State, 26 Ind. 422; O'Herrin v. State, 14 Ind. 420; Daneson v. State, 16 Ind. 428, 79 Am. Dec. 439; State v. Maxwell, 42 Iowa, 208; State v. Bell, 29 Iowa, 316; State v. Hart, 29 Iowa, 268; State v. Donovan, 61 Iowa, 369; State v. O'Neil, 51 Kan. 651, 24 L. R. A. 555; State v. Mowry, 37 Kan. 369; State v. White, 14 Kan. 538; State v. Horne, 9 Kan. 119; Buckhannon v. Com. 86 Ky. 110; Carpenter v. Com. 92 Ky. 452; McCarty v. Com. (Ky.) 20 S. W. 229; Conley v. Com. 98 Ky. 125; Shannahan v. Com. 8 Bush, 464, 8 Am. Rep. 465; Curry v. Com. 2 Bush, 67; Tyra v. Com. 2 Met. (Ky.) 1; Blimm v. Com. 7 Bush, 320; State v. Coleman, 27 La. Ann. 691; State v. Mullen, 14 La. Ann. 577; Com. v. Malone, 114 Mass. 295; Com. v. Gilbert, 165 Mass. 45; Lawton v. Sun Mut. Ins. Co. 2 Cush. 500; People v. Finley, 38 Mich. 482; People v. Wilson, 55 Mich. 506; Roberts v. People, 19 Mich. 401; People v. Garbutt, 17 Mich. 9, 97 Am. Dec. 162;

State v. Garvey, 11 Minn. 154; Kelly v. State, 3 Smedes & M. 518; State v. Murphy, 118 Mo. 7; State v. Riley, 100 Mo. 493; State v. Carter, 98 Mo. 176; State v. Lowe, 93 Mo. 547; State v. Sneed, 88 Mo. 138; State v. Ramsey, 82 Mo. 133; State v. Edwards, 71 Mo. 324; State v. Dearing, 65 Mo. 530; State v. Pitts, 58 Mo. 556; State v. Hundley, 46 Mo. 414; State v. Cross, 27 Mo. 332; State v. Harlow, 21 Mo. 446; Schaller v. State, 14 Mo. 502; Whitney v. State, 8 Mo. 165; State v. O'Reilly, 126 Mo. 597; Mix v. McCoy, 22 Mo. App. 488; Territory v. Manton, 8 Mont. 95; O'Grady v. State, 36 Neb. 320; Schlencker v. State, 9 Neb. 241; Smith v. State, 4 Neb. 277; State v. Thompson, 12 Nev. 140; State v. Martin, 4 N. J. L. J. 252, 3 Crim. L. Mag. 44; Territory v. Franklin, 2 N. M. 307; Flanigan v. People, 86 N. Y. 554, 40 Am. Rep. 556; Kenny v. People, 31 N. Y. 330; People v. Rogers, 18 N. Y. 9, 72 Am. Dec. 484; Friery v. People, 54 Barb. 319; Lanergan v. People, 50 Barb. 266; People v. Cavanagh, 62 How. Pr. 187; People v. Pine, 2 Barb. 566; People v. O'Connell, 62 How. Pr. 436; People v. Batting, 49 How. Pr. 392; Kenney v. People, 27 How. Pr. 202; People v. Jones, 2 Edm. Sel. Cas. 88; People v. Robinson, 1 Park. Crim. Rep. 649; People v. Porter, 2 Park. Crim. Rep. 14; People v. Fuller, 2 Park. Crim. Rep. 16; People v. Willey, 2 Park. Crim. Rep. 19; People v. Hammill, 2 Park. Crim. Rep. 223; People v. Robinson, 2 Park. Crim. Rep. 235; Rogers v. People, 3 Park. Crim. Rep. 633; Lanergan v. People, 6 Park. Crim. Rep. 209; State v. Wilson, 104 N. C. 868; State v. Potts, 100 N. C. 457; State v. John, 8 Ired. L. 330, 49 Am. Dec. 396; Pigman v. State, 14 Ohio, 555, 45 Am. Dec. 558; State v. Turner, 1 Wright (Ohio) 30; Cline v. State, 43 Ohio St. 332; Com. v. Cleary, 148 Pa. 26; McGinnis v. Com. 102 Pa. 66; Jones v. Com. 75 Pa. 403; Keenan v. Com. 44 Pa. 55, 84 Am. Dec. 414; Com. v. Perrier, 3 Phila. 229; Com. v. Dougherty, 1 Browne (Pa.) Appx. xviii.; Com. v. Baker, 11 Phila. 631; Com. v. Hart, 2 Brewst. (Pa.) 546; State v. Thompson, 1 Wright (Ohio) 617; Respublica v. Weidle, 2 U. S. 2 Dall. 88, 1 L. ed. 301; Kelly v. Com. 1 Grant, Cas. 484; State v. Morgan, 40 S. C. 345; State v. Bundy, 24 S. C. 439, 58 Am. Rep. 263; State v. Paulk, 18 S. C. 514; State v. Stark, 1 Strobh. L. 479; State v. McCants, 1 Speers, L. 389; State v. Toohy, 2 Rice, Dig. (S. C.) 105; Wilcox v. State, 94 Tenn. 196; Pirtle v. State, 9 Humph. 663; Clark v. State, 8 Humph. 671; Swan v. State, 4 Humph. 136; Cornwell v. State, Mart. & Y. 147; Bennett v. State, Mart. & Y. 133; Outlaw v. State, 35 Tex. 481; Carter v. State, 12 Tex. 500, 62 Am. Dec. 539; Osborn v. State (Tex. Crim. App.) 26 S. W. 625; Crew v. State (Tex. Crim. App.) 23 S. W. 14; Evers v. State, 31 Tex. Crim. Rep. 318, 18 L. R. A. 421; Kelly v. State, 31 Tex. Crim. Rep. 216; Ferrell v. State, 43 Tex. 503; Ex parte Evers, 29 Tex. App. 539; Clore v. State, 26 Tex. App. 624; Williams v. State, 25 Tex. App. 76; Ward v. State, 19 Tex. App. 664; Colbath v. State, 4 Tex. App. 76; Scott v. State, 12 Tex. App. 31; Payne v. State, 5 Tex. App. 35; Brown v. State, 4 Tex. App. 275; Jeffries v. State, 9 Tex. App. 598; Pugh v. State, 2 Tex. App. 539; Willis v. Com. 32 Gratt. 929; Com. v. Jones, 1 Leigh, 598; Boswell v. Com. 20 Gratt. 860; State v. Tatro, 50 Vt. 483; State v. Robinson, 20 W. Va. 713, 43

Intoxication, though sometimes regarded as temporary insanity ceasing with existing causes,[1] does not constitute unsoundness of mind unless the derangement which it has caused has become fixed and continued.[2] One who is a drunkard is not, as matter of law, of unsound mind.[3] And the condition of mind which usually and immediately follows the excessive use of alcoholic liquors is not unsoundness of mind which will palliate or excuse crime,[4] though accompanied by delusions, hallucinations, or illusions.[5] And one who voluntarily deprives himself of reason by intoxication, and commits an offense while in that condition, is criminally responsible if when unexcited by liquor he was capable of distinguishing between right and wrong, and of reasoning and acting rationally.[6] And a witness in a criminal prosecution cannot be asked if just before the criminal act the accused had mind enough to know right from wrong, and sufficient power to control his actions, where there was no pretext that he was insane and it clearly appears that his condition arose from voluntary drunkenness.[7] Nor will a plea that a larceny was committed in fun and while the accused was drunk protect him where the evidence of the larceny itself would be sufficient for conviction.[8] So, the

Am. Rep. 799; United States v. Claypool, 14 Fed. Rep. 127; United States v. Roudenbush, Baldw. 514; United States v. Bowen, 4 Cranch, C. C. 604; United States v. McGlue, 1 Curt. C. C. 1; United States v. Forbes, Crabbe, 558; United States v. Cornell, 2 Mason, 99; Reg. v. Monkhouse, 4 Cox, C. C. 55; Pearson's Case, 2 Lewin, C. C. 144; Reg. v. Doody, 6 Cox, C. C. 463; Burrow's Case, 1 Lewin, C. C. 75; Rennie's Case, 1 Lewin, C. C. 76; Beverly's Case, 4 Coke, 125*a;* Rex v. Thomas, 7 Car. & P. 817; Reg. v. Gamlen, 1 Fost. & F. 90; Reniger v. Fogossa, 1 Plowd. 19; Dammaree's Case, 15 How. St. Tr. 522; Frost's Case, 22 How. St. Tr. 472; Reg. v. Moore, 3 Car. & K. 319; Rex v. Meakin, 7 Car. & P. 297; Reg. v. Dixon, 11 Cox, C. C. 341.

[1] Wheeler v. Alderson, 3 Hagg. Eccl. Rep. 574.

[2] State v. Martin, 4 N. J. L. J. 252, 3 Crim. L. Mag. 44; Ross v. State, 62 Ala. 224; State v. Coleman, 27 La. Ann. 691; Carter v. State, 12 Tex. 500, 62 Am. Dec. 539; Burrow's Case, 1 Lewin, C. C. 75; Rennie's Case, 1 Lewin, C. C. 76.

[3] Re Johnson, 57 Cal. 529.

[4] Aszman v. State, 123 Ind. 347, 8 L. R. A. 33.

[5] Gunter v. State, 83 Ala. 96.

[6] Choice v. State, 31 Ga. 424.

[7] Buckhannon v. Com. 86 Ky. 110.

[8] People v. Wilson, 55 Mich. 506.

disease of oinomania, which consists of an inordinate thirst for liquor produced by the habit of drinking;[1] or of dipsomania, which is an irresistible impulse to indulge in intoxication, either from alcohol, opium, or other drugs,[2]—does not affect criminal responsibility for acts committed by an intoxicated person thus afflicted.[3] The condition caused by the use of alcohol or drugs cannot be regarded with the same leniency as an excuse for crime as adventitious insanity not caused by the act of the party himself.[4] And an instruction confusing insanity with intoxication is erroneous.[5] The test of insanity as affecting criminal responsibility that the accused must have labored under such a defect of reason as not to know the nature or quality of his act, or if he did know, that he did not know he was doing wrong, does not apply to drunkenness.[6] The rule is general that one who commits a crime in a state of voluntary intoxication is subject to the same rule of conduct and the same legal inferences, and is just as responsible, as a sober man,[7] voluntary drunkenness being no excuse, whatever its degree,[8] though carried to the extent of producing incapacity to control the will,[9] or though it was such as to render the accused unconscious of what he was doing,[10] or unable to comprehend the nature of the act,[11] or though it reduced him to temporary insanity.[12] In some of the cases, however, an

[1] Choice v. State, 31 Ga. 424.

[2] Ballard v. State, 19 Neb. 610; State v. Potts, 100 N. C. 457.

[3] Choice v. State, 31 Ga. 424; State v. Potts, 100 N. C. 457.

[4] Wilcox v. State, 94 Tenn. 106.

[5] People v. Kloss, 115 Cal. 567.

[6] People v. Ferris, 55 Cal. 588.

[7] State v. McCants, 1 Speers, L. 389; State v. Morgan, 40 S. C. 345; Garner v. State, 28 Fla. 113; Shannahan v. Com. 8 Bush, 464, 8 Am. Rep. 465; People v. Rogers, 18 N. Y. 9, 72 Am. Dec. 484.

[8] Beasley v. State, 50 Ala. 149, 20 Am. Rep. 292; Mercer v. State, 17 Ga. 146; State v. Bundy, 24 S. C. 439, 58 Am. Rep. 262.

[9] Flanigan v. People, 86 N. Y. 554, 40 Am. Rep. 556.

[10] State v. Davis, 9 Houst. (Del.) 407; Upstone v. People, 109 Ill. 169; Conley v. Com. 98 Ky. 125; People v. Garbutt, 17 Mich. 9, 97 Am. Dec. 162; People v. Robinson, 1 Park. Crim. Rep. 649; Boswell v. Com. 20 Gratt. 860; State v. Robinson, 20 W. Va. 713, 43 Am. Rep. 799. And see State v. Grear, 29 Minn. 221; Rex v. Carroll, 7 Car. & P. 145.

[11] Beck v. State, 76 Ga. 452.

[12] State v. Bullock, 13 Ala. 413; People v. Williams, 43 Cal. 344; Garner

exception is made to the rule, which is stated to be that mere drunkenness will not excuse criminal conduct unless it extends so far as to destroy the capacity to distinguish between right and wrong,[1] or unless it renders the accused unconscious of what he is doing,[2] or unless it was such as to prevent him from restraining himself from committing the act,[3] or unless he was in such a state as to perform it without volition and to have lost control of his will and have been incapable of forming a purpose.[4] And it has been held that intoxication is no defense in a prosecution for passing counterfeit notes if the accused was possessed of his reason and capable of knowing whether the notes passed were good or bad, and that in the absence of proof of such knowledge he could not be found guilty.[5] And transient insanity ensuing from intoxication caused by sensual gratification or social hilarity, though it will not altogether excuse homicide, should mitigate it.[6] But an instruction in a criminal prosecution in which the life of the accused is at stake, that voluntary intoxication furnishes no excuse for crime, even if it was so extreme as to render him unconscious of what he was doing or to create temporary insanity, when there was no evidence upon which it could be predicated, will not be deemed to have had any tendency to mislead the jury.[7]

While drunkenness does not excuse crime, however, it cannot be held to aggravate it,[8] nor can it convert a mere accident into a felony,[9] though it has been said to be an aggravation rather

v. State, 28 Fla. 113; Beck v. State, 76 Ga. 452; Upstone v. People, 109 Ill. 169; State v. Riley, 100 Mo. 495; Schlencker v. State, 9 Neb. 241; State v. Thompson, 12 Nev. 140; State v. Martin, 4 N. J. L. J. 252, 3 Crim. L. Mag. 44.

[1] Ross v. State, 62 Ala. 224; State v. Wells, 54 Kan. 161. And see Territory v. Franklin, 2 N. M. 307; Com. v. Hart, 2 Brewst. (Pa.) 546.

[2] State v. Till, Houst. Crim. Rep. (Del.) 233; Pigman v. State, 14 Ohio, 555, 45 Am. Dec. 558; Osborn v. State (Tex. Crim. App.) 26 S. W. 625. And see State v. Wells, 54 Kan. 161.

[3] Reg. v. Monkhouse, 4 Cox, C. C. 55.

[4] People v. Odell, 1 Dak. 189; Com. v. Gilbert, 165 Mass. 45.

[5] United States v. Roudenbush, Baldw. 514.

[6] Smith v. Com. 1 Duv. 224; Blimm v. Com. 7 Bush, 320.

[7] Montag v. People, 141 Ill. 75.

[8] McIntyre v. People, 38 Ill. 514; Ferrell v. State, 43 Tex. 503. But see State v. Thompson, Wright (Ohio) 617.

[9] State v. Cross, 42 W. Va. 253.

than an apology,[1] and held to be itself a crime.[2] And a remark by the court in the hearing of the jury that drunkenness is more of an aggravation than an excuse, without explanation, is error.[3] But when drunkenness is resorted, to to blunt moral responsibility, it heightens the culpability of the offender,[4] and tends to elevate the offense of murder to the first degree.[5]

§ 2. *When intoxication may be shown; generally.*

Intoxication may be shown in a prosecution for a criminal act as any other fact, not as an excuse or defense, but to throw light upon the other facts and circumstances in the case;[6] and as tending to show that the accused, by reason of his drunkenness, was physically unable to commit the offense charged against him;[7] or to show that no crime was committed,[8] as well as for the purpose of showing that it was highly improbable that he did in fact commit it;[9] or to enable the jury to determine whether his mental condition was such that he knew he was committing an offense;[10] though it can only be considered in cases involving the condition of the defendant's mind when the act was done.[11] So, when the nature and essence of a crime are made by law to depend upon the peculiar state and condition of the criminal's mind at the time with reference to the act done, drunkenness may be a proper subject for the consideration of the jury, not to excuse or miti-

[1] United States v. Forbes, Crabbe, 558; State v. Thompson, Wright (Ohio) 617; Com. v. Hart, 2 Brewst. (Pa.) 516; United States v. Cornell, 2 Mason, 99.

[2] Harris v. United States, 8 App. D. C. 20.

[3] State v. Donovan, 61 Iowa, 369.

[4] United States v. Claypool, 14 Fed. Rep. 127.

[5] Willis v. Com. 32 Gratt. 929.

[6] Jenkins v. State, 93 Ga. 1; Hanvey v. State, 68 Ga. 612; Lanergan v. People, 6 Park. Crim. Rep. 209.

[7] Jenkins v. State, 93 Ga. 1.

[8] Cline v. State, 43 Ohio St. 332.

[9] Ingalls v. State, 48 Wis. 647; Scott v. State, 12 Tex. App. 31.

[10] People v. Harris, 29 Cal. 678; Pigman v. State, 14 Ohio, 555, 45 Am. Dec. 558. And see Fisher v. State, 30 Tex. App. 502.

[11] State v. Mowry, 37 Kan. 369; State v. Lowe, 93 Mo. 547; Scott v. State, 12 Tex. App. 31; People v. Nichol, 34 Cal. 211.

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gate the offense, but to show that the offense was not committed.[1]

And where the criminal act is one which can be committed only by doing a particular thing with a specific intent, it may be shown that at the time of doing it the accused was so drunk that he could not have entertained the intent necessary to constitute the offense,[2] for the purpose of determining the condition of the defendant's mind and to throw light upon the inquiry whether there was malice,[3] not for the purpose of excusing or mitigating the offense, but to enable the court or jury to consider whether in fact a crime had been committed;[4] as one who was too intoxicated to be able to entertain the particular intent would be incapable of committing the offense.[5] And intoxication is also to be considered in determining the purpose or motive or intent with which a crime was committed in cases of crimes which are divided into degrees, or which are clearly so divided by inferential construction.[6] The rule that a man who by intoxication voluntarily

[1] People v. Robinson, 2 Park. Crim. Rep. 235; Cline v. State, 43 Ohio St. 332; Swan v. State, 4 Humph. 136.

[2] White v. State, 103 Ala. 72; Chatham v. State, 92 Ala. 47; Chrisman v. State, 54 Ark. 283; People v. Harris, 29 Cal. 678; People v. Nichol, 34 Cal. 211; Garner v. State, 28 Fla. 113; Crosby v. People, 137 Ill. 325; Bartholomew v. People, 104 Ill. 605, 44 Am. Rep. 97; Aszman v. State, 123 Ind. 347, 8 L. R. A. 33; State v. Maxwell, 42 Iowa, 208; State v. White, 14 Kan. 538; Keeton v. Com. 92 Ky. 522; State v. Trivas, 32 La. Ann. 1086, 36 Am. Rep. 293; Roberts v. People, 19 Mich. 401; People v. Walker, 38 Mich. 156; Kelly v. State, 3 Smedes & M. 518; State v. Garvey, 11 Minn. 154; O'Grady v. State, 36 Neb. 320; People v. Leonardi, 143 N. Y. 360; People v. Eastwood, 14 N. Y. 562; Rogers v. People, 3 Park. Crim. Rep. 633; Ferrell v. State, 43 Tex. 503; Swan v. State, 4 Humph. 136; Wenz v. State, 1 Tex. App. 36; Scott v. State, 12 Tex. App. 31; Reg. v. Gamlen, 1 Fost. & F. 90; Reg. v. Cruse, 8 Car. & P. 541.

[3] Malone v. State, 49 Ga. 210; Moon v. State, 68 Ga. 687; State v. Trivas, 32 La. Ann. 1086, 36 Am. Rep. 296; Golliher v. Com. 2 Duv. 163, 87 Am. Dec. 493; Dawson v. State, 16 Ind. 428, 79 Am. Dec. 439.

[4] O'Grady v. State, 36 Neb. 320; People v. Harris, 29 Cal. 678; Swan v. State, 4 Humph. 136; State v. Garvey, 11 Minn. 154; People v. Robinson, 2 Park. Crim. Rep. 235.

[5] Garner v. State, 28 Fla. 113; State v. Donovan, 61 Iowa, 369; People v. Haley, 48 Mich. 495.

[6] People v. Odell, 1 Dak. 189; People v. Young, 102 Cal. 411; O'Grady v. State, 36 Neb. 320; United States v. Meagher, 37 Fed. Rep. 875. And see People v. Belencia, 21 Cal. 544; Conley v. Com. 98 Ky. 125.

puts himself in a condition in which he has no control of his actions must be held to intend the consequences, includes only such as actually ensued,—the crime actually committed,—and not an intent in addition thereto where at the time the accused was incapable of entertaining, and did not in fact entertain, it.[1] And the mental condition of the accused with reference to intoxication is an important factor to be considered where the intent is an essential ingredient of the crime committed.[2]

The fact of intoxication, however, is not conclusive against the existence of the criminal intent.[3] It may be given in evidence, but the effect of such evidence will depend upon the other circumstances of the case.[4] So long as the offender is capable of conceiving the design, the fact that the perpetrator was intoxicated cannot be allowed to affect the legal character of the act.[5] And he will be presumed, in the absence of proof to the contrary, to have intended the actual consequences of his acts.[6] The jury has the right to presume that he intended such consequences.[7] And where without intoxication the law would impute to the act a criminal intent, voluntary drunkenness is not available to disprove such intent.[8] And the law will hold the party responsible by construction, although there may be no actual criminal intent.[9] All that a court ought ordinarily to do is to state to the jury that drunkenness is one of the circumstances tending to show the state of the defendant's mind as bearing upon the question of the presence or absence of a criminal intent.[10] And refusal to charge as to drunkenness as affecting intent is not error where temporary insanity from the recent use of intoxicating liquor incapacitating

[1] Roberts v. People, 19 Mich. 401.

[2] Aszman v. State, 123 Ind. 347, 8 L. R. A. 33.

[3] State v. White, 14 Kan. 538; State v. Avery, 44 N. H. 392.

[4] People v. Rogers, 18 N. Y. 9, 72 Am. Dec. 484; Wenz v. State, 1 Tex. App. 36.

[5] Friery v. People, 54 Barb. 319; State v. Trivas, 32 La. Ann. 1086, 36 Am. Rep. 293; Chatham v. State, 92 Ala. 47; King v. State, 90 Ala. 612; State v. O'Neil, 51 Kan. 651, 24 L. R. A. 555.

[6] Smurr v. State, 88 Ind. 504; Friery v. People, 54 Barb. 319.

[7] People v. Fish, 125 N. Y. 136.

[8] Upstone v. People, 109 Ill. 169; Rafferty v. People, 66 Ill. 118.

[9] O'Herrin v. State, 14 Ind. 420.

[10] State v. White, 14 Kan. 538.

the party to form an intent would not have reduced the grade of the crime.[1] Nor is such refusal reversible error where the evidence is not preserved so that it can be seen what proof of intent there was and how great was the intoxication,[2] the admission of evidence as to intoxication being sufficient without charging as to its weight.[3] Drunkenness will not change the grade of an offense, however, unless the evidence suggests some other motive for the act to be compared by the jury with the state's theory of a malicious intent, and in the absence of such suggestions no charge with reference to drunkenness as a separate element in grading the offense need be given to the jury.[4] And evidence on the trial of an offense, which does not involve any specific intent as to whether the defendant was drunk or sober at the time of its commission, is immaterial and inadmissible.[5] The question whether one accused of crime of which a specific intent is an essential element, who had interposed drunkenness as a defense, knew what he was doing or not, is one of fact for the jury;[6] and excuse for criminal acts because of drunkenness is at all times to be received with great caution on account of the ease with which it may be perverted.[7] And an instruction characterizing drunkenness as gross vice and misconduct is not error where the language is not applied to the defendant;[8] and using the expression, "there is something said in regard to drunkenness," in an instruction, is not subject to objection that it has a tendency to make light of the plea of drunkenness as a defense.[9] But a remark by the judge to the jury in a criminal prosecution, that there was some evidence of the defendant's drunkenness, is erroneous as liable to be understood as expressing an opinion as to the quantity and weight of the evidence on the question of drunkenness which was unfavorable to the accused, though without the

[1] Hernandez v. State, 32 Tex. Crim. Rep. 271.
[2] State v. White, 14 Kan. 538.
[3] Nichols v. State, 8 Ohio St. 435.
[4] Estes v. State, 55 Ga. 30.
[5] People v. Marseiler, 70 Cal. 98; People v. Porter, 2 Park. Crim. Rep. 14.
[6] White v. State, 103 Ala. 72; State v. Bell, 29 Iowa, 316.
[7] Kriel v. Com. 5 Bush, 362; People v. Ferris, 55 Cal. 588.
[8] People v. Calton, 5 Utah, 451.
[9] Vann v. State, 83 Ga. 44.

qualifying word "some" the expression would have been free from objection.[1] The Missouri rule, however, would seem to be that intoxication is not to be taken into consideration either to excuse crime or to extenuate it [2] or reduce its grade,[3] and that evidence of intoxication is wholly inadmissible.[4]

§ 3. *Larceny, burglary, etc.*

Larceny consists of a wrongful taking with a felonious intent, and where the taker was so intoxicated as to have been unable to form such intent he is not guilty of the crime,[5] and is entitled to an acquittal unless the jury is satisfied that he had formed the intention to steal while in possession of his reasoning powers.[6] The general condition, as to drunkenness, of the accused, therefore, is admissible in evidence in a prosecution for larceny to enable the jury to determine his intention in taking the property.[7] And evidence that the accused was so intoxicated that it was improbable, if not impossible, that he could have committed the theft, is admissible, not as a defense for want of mental capacity, but as tending to show that the acts constituting the offense were not done by him.[8] Drunkenness cannot be considered as a defense, however, unless it had the effect in some degree to deprive the accused of his reason.[9] And evidence that the accused was weak-minded, and that he may have been voluntarily intoxicated, furnishes no substantive defense against a felonious taking where there is nothing to show mental unsoundness.[10] It

[1] State v. Donovan, 61 Iowa, 278.

[2] State v. Edwards, 71 Mo. 321; State v. Ramsey, 82 Mo. 133; State v. Murphy, 118 Mo. 7; State v. Harlow, 21 Mo. 446.

[3] State v. Cross, 27 Mo. 332; State v. Sneed, 88 Mo. 138; State v. O'Reilly, 126 Mo. 597.

[4] State v. Sneed, 88 Mo. 138.

[5] Wood v. State, 34 Ark. 341, 36 Am. Rep. 13; People v. Walker, 38 Mich. 156; People v. Cummins, 47 Mich. 334; State v. Schingen, 20 Wis. 75. And see Henslie v. State, 3 Heisk. 202.

[6] State v. Schingen, 20 Wis. 75.

[7] Loza v. State, 1 Tex. App. 488, 28 Am. Rep. 416; Bartholomew v. People, 104 Ill. 605, 44 Am. Rep. 97; Robinson v. State, 113 Ind. 510; Wenz v. State, 1 Tex. App. 36.

[8] Ingalls v. State, 48 Wis. 647; Jenkins v. State, 93 Ga. 1.

[9] State v. Hart, 29 Iowa, 268.

[10] Robinson v. State, 113 Ind. 510.

must appear that he was incapable of entertaining the intent to steal.[1] And the intoxication of a person who breaks into a house in the night-time with intent to steal is no excuse where the criminal intent existed, though it is admissible on the question of intent.[2]

So, the intent with which a building is entered is a necessary element to the crime of burglary, and the jury in a prosecution therefor may take into consideration the fact that the accused was intoxicated at the time, in determining the purpose, motive, or intent with which he did it.[3] And a person prosecuted for burglary with intent to steal cannot be found guilty if his intoxication was such that he could not at the time entertain a criminal intent.[4] And robbery by one who was so drunk at the time as not to know what he was doing will be deemed to have been done without a felonious intent,[5] and the question whether he was capable of forming a criminal intent is one of fact for the jury.[6]

So, a person cannot be guilty of the crime of forgery with intent to defraud where his mental condition was such from intoxication that he was unable or incapable of forming such intent.[7] And evidence tending to show that in consequence of protracted intemperance the mental faculties of the accused had been impaired to such an extent as to deprive him of the capacity to distinguish between right and wrong, and that he did not know what he was doing at the time, is admissible on the question of intent.[8] And the condition of a party, whether drunk or sober, at the time he signed a paper properly in evidence in a prosecution for forgery, which is sought to be used for the purpose of comparison of handwriting, is competent evidence.[9] It was held in an early Indiana case, however, that voluntary drunkenness is no excuse for larceny or other crimes other than certain grades of homicide committed while the intoxi-

[1] Bartholomew v. People, 104 Ill. 605, 44 Am. Rep. 97.
[2] State v. Bell, 29 Iowa, 316.
[3] People v. Phelon, 93 Cal. 111.
[4] State v. Bell, 29 Iowa, 316.
[5] Keeton v. Com. 92 Ky. 522.
[6] State v. Bell, 29 Iowa, 316; Keeton v. Com. 92 Ky. 522.
[7] People v. Blake, 65 Cal. 275.
[8] People v. Blake, 65 Cal. 275.
[9] People v. Parker, 67 Mich. 222.

cation lasted, as such drunkenness is a wrongful act, for the immediate consequences of which the law will hold the party responsible by construction, although there may be no actual criminal intent.[1] And intoxication is no defense in a prosecution for voting more than once, though the accused was so drunk when he voted the second time that he did not know what he was doing, and did not remember that he had voted before.[2]

§ 4. *Homicide.*

Drunkenness may produce a state of mind in a person which will render him incapable of entertaining or forming a design to take life.[3] And the fact that the accused was intoxicated at the time of the act may be taken into consideration in a prosecution therefor in determining his purpose, motive, and intent.[4] And it may be material to explain his conduct at and prior to that time, and with reference to the design with which the act was perpetrated,[5] and as bearing upon the question of malice, so as to reduce the grade of the crime of which malice is a necessary ingredient.[6] So, proof of intoxication of one who committed homicide without motive, and talked and acted strangely at the time, is pertinent and admissible as a circumstance helping to account for an act otherwise unexplainable.[7] And where the jury is required to fix the punishment, the intoxication of the accused at the time should be considered as tending to give character to his act.[8] A homicide committed when the accused

[1] O'Herrin v. State, 14 Ind. 420.

[2] State v. Welch, 21 Minn. 22. *Contra*, People v. Harris, 29 Cal. 678.

[3] Fonville v. State, 91 Ala. 39; Morrison v. State, 84 Ala. 405; State v. Smith, 49 Conn. 376; Kelly v. State, 3 Smedes & M. 518.

[4] People v. Cassiano, 30 Hun, 388; Rogers v. People, 3 Park. Crim. Rep. 633; Lanergan v. People, 50 Barb. 266; People v. Hammill, 2 Park. Crim. Rep. 223; Aszman v. State, 123 Ind. 347, 8 L. R. A. 33; People v. Kloss, 115 Cal. 567; People v. King, 27 Cal. 507, 87 Am. Dec. 95.

[5] People v. Eastwood, 14 N. Y. 562; Jenkins v. State, 93 Ga. 1; Keeton v. Com. 92 Ky. 522. And see Jones v. State, 29 Ga. 594; Golliher v. Com. 2 Duv. 163, 87 Am. Dec. 493.

[6] Ford v. State, 71 Ala. 385; State v. Johnson, 40 Conn. 136, 41 Conn. 584; Wilkerson v. Com. 83 Ky. 29; Shannahan v. Com. 8 Bush, 464, 8 Am. Rep. 465; Blimm v. Com. 7 Bush, 320; Moore v. State, 68 Ga. 687; Kelly v. State, 3 Smedes & M. 518.

[7] Blimm v. Com. 7 Bush, 320.

[8] Rafferty v. People, 66 Ill. 118.

was so intoxicated that no intent to commit the crime of murder existed, is not murder but manslaughter,[1] or murder in the second degree.[2] And a killing which is intentional and unlawful, but wholly from passion inflamed by intoxication, and an imaginary insult, without that degree of thought essential to malice, amounts only to voluntary manslaughter.[3] And drunkenness from mere social hilarity, though wrong, may be of such a character as to show that the mind was incapable of preconceived malice or intentional homicide, reducing the homicide to manslaughter.[4] And refusal to instruct that if the defendant was so drunk as to render the formation of any special intent to take life impossible, and before becoming drunk he entertained no malice and no intention to take life, he cannot be convicted of murder, is not error where the jury was distinctly told that if at the time of the killing he was in such a condition of mind by reason of drunkenness as to be incapable of forming a specific intent to kill the grade of his crime would be reduced to manslaughter.[5] So, one who kills another, believing that he is acting in self-defense, but who from intoxication makes an error in determining whether or not his peril was imminent, is negligent in forming his belief, and would be guilty of manslaughter, as negligent homicide is manslaughter;[6] and the jury is bound to take his condition into consideration on the question as to whether the offense was murder or manslaughter,[7] though if he were sober enough to form an intent and to deliberate and premeditate the crime he is responsible the same as if he had been entirely sober.[8]

Drunkenness, however, cannot operate as an entire exemption

[1] Rogers v. People, 3 Park. Crim. Rep. 633; People v. Lane, 100 Cal. 379; Smith v. State, 4 Neb. 277; Com. v. Baker, 11 Phila. 631.

[2] State v. Martin, 4 N. J. L. J. 252, 3 Crim. L. Mag. 44; Tidwell v. State, 70 Ala. 33.

[3] People v. Dillon, 8 Utah, 92.

[4] Kriel v. Com. 5 Bush, 362. And see Blimm v. Com. 7 Bush, 320.

[5] Tucker v. United States, 151 U. S. 164, 38 L. ed. 112.

[6] United States v. King, 34 Fed. Rep. 302.

[7] People v. Fish, 125 N. Y. 136; Rogers v. People, 3 Park. Crim. Rep. 633; State v. Johnson, 41 Conn. 584; State v. Hurley, Houst. Crim. Rep. (Del.) 28; United States v. Meagher, 37 Fed. Rep. 875.

[8] People v. Fish, 125 N. Y. 136; Roberts v. People, 19 Mich. 401.

from punishment;[1] at the utmost it only extenuates a homicide from murder to manslaughter.[2] Its only materiality is its bearing upon the question of deliberation, premeditation, and intent,[3] and the plea is to be received with great caution;[4] and the evidence thereon is to be left to the jury to determine whether the accused was capable of entertaining the specific intent.[5] It does not reduce the offense of murder to manslaughter as a matter of law,[6] and the fact of drunkenness, though a circumstance tending to show the absence of malice, should not be singled out from the other proof and the jury told that it mitigates the offense.[7] The jury has the right to presume that the accused intended the actual consequences of his act,[8] though such presumption is rebutted by proof that he was so drunk that he did not know what he was doing.[9] The intent with which a person commits a homicide, however, and not the motive or purpose, is the test of his criminal responsibility in determining the degree of his guilt, and an instruction limiting the inquiry to his state of mind, as to whether from the effect of intoxication he was capable of entertaining an intent to kill, is error.[10] Malice necessary to constitute murder in the first degree is a deliberate intent unlawfully to take life, whether it springs from hatred, ill-will, revenge, ambition, avarice, or the mere frenzy of drunkenness.[11] And intoxication to affect responsibility must be such as to result in a fixed mental

[1] Kriel v. Com. 5 Bush, 363; State v. Martin, 4 N. J. L. J. 252, 3 Crim. L. Mag. 44; Blimm v. Com. 7 Bush, 320; Cleveland v. State, 86 Ala. 1; State v. Wilson, 104 N. C. 868.

[2] Blimm v. Com. 7 Bush, 320.

[3] People v. Fish, 125 N. Y. 136; People v. Lewis, 36 Cal. 531.

[4] United States v. Meagher, 37 Fed. Rep. 875; People v. Lewis, 36 Cal. 531.

[5] United States v. Meagher, 37 Fed. Rep. 875; Armor v. State, 63 Ala. 176; State v. Smith, 49 Conn. 376; Cook v. Territory, 3 Wyo. 110; Chatham v. State, 92 Ala. 47; People v. Mills, 98 N. Y. 176.

[6] State v. Johnson, 40 Conn. 136; White v. State, 103 Ala. 72; State v. Ashley, 45 La. Ann. 1036. And see State v. White, 14 Kan. 538.

[7] Shannahan v. Com, 8 Bush, 464, 8 Am. Rep. 465.

[8] People v. Fish, 125 N. Y. 136.

[9] State v. Barber, 92 N. C. 820. But see State v. Cross, 27 Mo. 334.

[10] State v. Hansen, 25 Or. 391; Reg. v. Dixon, 11 Cox, C. C. 341.

[11] Beck v. State, 76 Ga. 452.

disease of some continuance or duration,[1] or such as to effect a temporary destruction of the reason, mere nervous excitement not being sufficient.[2] One whose mental faculties are so far overcome by intoxication that he is not conscious of what he is doing, however, or that he does not know why he does it, or that his actions and the means he uses are naturally adapted to endanger life, has not sufficient capacity to entertain an intent to kill, and the intent cannot be inferred from his acts.[3] And intoxication is admissible in evidence where the homicide is claimed to have been committed by a blow inflicted with a club in a sudden affray,[4] or with a weapon which happened to be in the hand of the accused.[5] But one who, though intoxicated, knows what he is doing and why he is doing it, and that the means used are naturally adapted and likely to kill, is capable of entertaining the intent, and the intent should be inferred from his acts in the same manner and to the same extent as if he were sober.[6] And one who is sober enough to force his way into a building and trace his victim from room to room, providing himself with a murderous weapon, and to announce his intentions and execute his purpose by a repetition of fatal blows, and to plan and execute an immediate escape, is sober enough to suffer the penalty therefor.[7] So, one who was conscious of and understood what was done and said by himself and others at the time, so as to give an intelligent and true account of it at the trial, is responsible for his conduct at that time.[8] And one who poisons another by mingling arsenic with his drink for the purpose of effecting his death is guilty of murder, though excited by intoxication, no matter to what degree.[9] And the fact that the perpetrator was intoxicated cannot be allowed to affect the legal character of the homicide where the

[1] Lanergan v. People, 6 Park. Crim. Rep. 209; Gillooley v. State, 58 Ind. 182.

[2] Casat v. State, 40 Ark. 511; Walker v. State, 91 Ala. 76.

[3] Roberts v. People, 19 Mich. 401.

[4] Eastwood v. People, 3 Park. Crim. Rep. 25.

[5] Rex v. Thomas, 7 Car. & P. 817. And see Rex v. Meakin, 7 Car. & P. 297.

[6] Roberts v. People, 19 Mich. 401.

[8] Kenny v. People, 31 N. Y. 330.

[7] Territory v. Franklin, 2 N. M. 307.

[9] People v. Robinson, 2 Park. Crim. Rep. 235.

act was designed and unprovoked;[1] or where it was deliberate and premeditated;[2] or where it was wilful and intentional;[3] or where it was done intentionally as a matter of revenge;[4] or where a deadly weapon was used;[5] or where it was committed with a design to take life.[6] And the fact that the accused was intoxicated, and that he was induced to conceive the design to take life more readily because of his intoxication will not reduce the degree of his crime to murder in the second degree.[7] And a refusal to grant a continuance for the purpose of obtaining witnesses to prove that the accused was crazy drunk when he committed the act, is not ground for reversal when his condition was fully shown by other witnesses, and the homicide was utterly unprovoked, and the conviction was for murder in the second degree.[8] It has been held, however, that in order to be too drunk to form an intent to kill by shooting, the accused must have been too drunk to shoot;[9] and that the intoxication of a person accused of homicide has nothing to do with the question of malice.[10]

§ 5. *Intoxication as affecting deliberation and premeditation.*

Intoxication, though voluntary, is to be taken into consideration in a prosecution for murder in the first degree where a premeditated design to effect death is essential to the offense, to shed light upon the state of mind of the accused with reference to its effect upon his ability at the time to form and entertain such

[1] Friery v. People, 54 Barb. 319. And see Smith v. Com. 1 Duv. 224.

[2] State v. McDaniel, 115 N. C. 807; State v. Hansen, 25 Or. 391; State v. Tatro, 50 Vt. 483; State v. Douglass, 28 W. Va. 297; State v. Robinson, 20 W. Va. 713, 43 Am. Rep. 799; Honesty v. Com. 81 Va. 283; Tidwell v. State, 70 Ala. 33.

[3] State v. Tatro, 50 Vt. 483; People v. Jones, 2 Edm. Sel. Cas. 88; Warner v. State, 56 N. J. L. 686.

[4] State v. Gut, 13 Minn. 343.

[5] Rex v. Meakin, 7 Car. & P. 297.

[6] People v. Hammill, 2 Park. Crim. Rep. 223.

[7] Warner v. State, 56 N. J. L. 686.

[8] McCarty v. State, 4 Tex. App. 461.

[9] Marshall v. State, 59 Ga. 154; Estes v. State, 55 Ga. 30. But see Garner v. State, 28 Fla. 113.

[10] Nichols v. State, 8 Ohio St. 435.

design,[1] not because *per se* it either excuses or mitigates crime, but because in connection with other facts an absence of malice or premeditation may appear;[2] its influence depending upon its motive, its degree, and its effect on the mind and passions.[3] And under the Texas statute with relation to drunkenness it may also be considered in mitigation of the penalty.[4] A person who commits a homicide while so drunk as to be incapable of forming a premeditated and deliberate design to kill is not guilty of murder in the first degree.[5] Intoxication which is sufficient to deprive the person of power to see and weigh the nature of the act is sufficient to reduce homicide from murder in the first degree to murder in the second degree,[6] drunkenness as evidence of want of premeditation not being within the rule excluding it as an

[1] People v. Nichol, 34 Cal. 212; People v. Belencia, 21 Cal. 544; People v. Williams, 43 Cal. 344; State v. Johnson, 40 Conn. 136; Garner v. State, 28 Fla. 113; Golden v. State, 25 Ga. 527; State v. O'Neil, 51 Kan. 651; State v. Mowry, 37 Kan. 369; Buckhannon v. Com. 86 Ky. 110; Kerr v. Com. 2 Bush, 67, 24 L. R. A. 555; Golliher v. Com. 2 Duv. 164, 87 Am. Dec. 493; Hill v. State, 42 Neb. 503; Schlencker v. State, 9 Neb. 241; Smith v. State, 4 Neb. 277; People v. Batting, 49 How. Pr. 392; People v. Conroy, 2 N. Y. Crim. Rep. 247; Pigman v. State, 14 Ohio, 555, 45 Am. Dec. 558; State v. Zorn, 22 Or. 591; Cartwright v. State, 8 Lea, 381; Pirtle v. State, 9 Humph. 663; Haile v. State, 11 Humph. 154; Swan v. State, 4 Humph. 136; Norfleet v. State, 4 Sneed, 345; Ayres v. State (Tex. Crim. App.) 26 S. W. 396; Clore v. State, 26 Tex. App. 624; Williams v. State, 25 Tex. App. 76; Charles v. State, 13 Tex. App. 658; McCarty v. State, 4 Tex. App. 468; Colbath v. State, 4 Tex. App. 76; Brown v. State, 4 Tex. App. 275; Colbath v. State, 2 Tex. App. 391; Willis v. Com. 32 Gratt. 929; State v. Robinson, 20 W. Va. 713, 43 Am. Rep. 799; Cross v. State, 55 Wis. 261; Hopt v. Utah, 104 U. S. 631, 26 L. ed. 873; Rex. v. Grindley, cited in 1 Russell, Crimes, Am. ed. *8. But see Rex v. Carroll, 7 Car. & P. 145.

[2] Buckhannon v. Com. 86 Ky. 110; Hill v. State, 42 Neb. 503; State v. Johnson, 40 Conn. 136; People v. King, 27 Cal. 507, 87 Am. Dec. 95.

[3] Golliher v. Com. 2 Duv. 164, 87 Am. Dec. 493.

[4] Williams v. State, 25 Tex. App. 76.

[5] Cartwright v. State, 8 Lea, 377; McGinnis v. Com. 102 Pa. 66; Com. v. Platt, 11 Phila. 421; Com. v. Hart, 2 Brewst. (Pa.) 546; Com. v. Baker, 11 Phila. 631; State v. Robinson, 20 W. Va. 713, 43 Am. Rep. 799.

[6] Jones v. Com. 75 Pa. 403; Com. v. Cleary, 148 Pa. 26; Com. v. Hart, 2 Brewst. (Pa.) 546; Com. v. Perrier, 3 Phila. 229; State v. Davis, 9 Houst. (Del.) 407; Ayres v. State (Tex. Crim. App.) 26 S. W. 396; McCarty v. State, 4 Tex. App. 461; Willis v. Com. 32 Gratt. 929; Roswell v. Com. 20 Gratt. 860; State v. Robinson, 20 W. Va. 713, 43 Am. Rep. 799.

excuse for crime.[1] The test of responsibility in a prosecution for murder in the first degree in which intoxication is alleged as a defense is, Was the accused at the time rendered incapable of forming the intention or exercising the deliberation and premeditation which are essential to the commission of the crime, or was his mind so broken down and destroyed as to render him incapable of forming such an intent?[2] Murder in the first degree, in which premeditated malice is a distinguishing ingredient, cannot be committed by one who is incapacitated to think deliberately and determine rationally as to the quality, character, and consequences of the act.[3] Intoxication which will reduce homicide from murder in the first degree to murder in the second degree must be such as to deprive the person of the power of judging of his acts and their legitimate consequences.[4] But it need not go to the extent of depriving him of all power of volition or of ability to form an intent, to permit a finding of the absence of the necessary degree of deliberation or premeditation.[5] Nor need it be such as to deprive the accused of capacity to form and premeditate a deliberate design to take life, to render it admissible, where the question is between murder in the first degree and murder in the second degree.[6] The fact that a person is sober enough to form the intent to shoot raises no presumption that he was sober enough to form a premeditated design to kill.[7] The only question arising is whether the defendant was in such a condition as to be capable of forming a design to kill and did kill in pursuance of that design,[8] and any degree of drunkenness may be considered.[9] But no proof of intoxication short of showing that the person charged with murder was utterly incapable of

[1] People v. Belencia, 21 Cal. 544.

[2] Territory v. Davis (Ariz.) 6 Lawson, Crim. Defenses, 630; Bernhardt v. State, 82 Wis. 23.

[3] Aszman v. State, 123 Ind. 347, 8 L. R. A. 33. And see State v. Bowen, Houst Crim. Rep, (Del.) 91; State v. Davis, 9 Houst. (Del.) 407.

[4] Com. v. Crozier, 1 Brewst. (Pa.) 349.

[5] People v. Leonardi, 143 N. Y. 360; McIntyre v. People, 38 Ill. 514.

[6] Haile v. State, 11 Humph. 154; Cartwright v. State, 8 Lea, 377; Lancaster v. State, 2 Lea, 575.

[7] Garner v. State, 28 Fla. 113.

[8] Nevling v. Com. 98 Pa. 323; State v. McDaniel, 115 N. C. 807.

[9] Lancaster v. State, 2 Lea, 575.

was sober or intoxicated cannot affect the question of the existence or nonexistence of such adequate cause as might reduce the offense to that of manslaughter,[1] though intoxication may be considered in deciding whether the act was due to the provocation or to malice,[2] and to explain the conduct of the accused.[3] And voluntary drunkenness does not enlarge the right of self-defense, and is not available as a defense, where in consequence thereof the accused acted upon an exaggerated or unjustifiable belief as to the necessity for taking the life of another in defense of his own,[4] though a person is not bound to stand by and see his brother killed or suffer great bodily harm because the brother is so drunk as not to know his duty to retreat and get out of the way of bodily harm, or as to be physically unable to retreat,[5] and intoxication may be considered on the question whether the danger apprehended was sufficient to justify the act in question.[6] Murder in the second degree rests upon implied malice, and the jury may find its existence, subjecting the offender to a charge of murder in the second degree, though his intoxication was such as to disprove express malice.[7]

The question whether drunkenness has incapacitated a person accused of homicide to form a premeditated design to murder is one for the jury,[8] and so is the question What weight shall be given the evidence?[9] Where the question of the capacity of a person charged with crime to deliberate at the time of its com-

[1] Gaitan v. State, 11 Tex. App. 544; People v. Langton, 67 Cal. 427; McIntyre v. People, 38 Ill. 514; Com. v. Hawkins, 3 Gray, 463. And see Morris v. State, 84 Ala. 405.

[2] Jones v. State, 29 Ga. 594; People v. Rogers, 18 N. Y. 9, 72 Am. Dec. 484; State v. McCants, 1 Speers, L. 389; Cartwright v. State, 8 Lea, 377; State v. Mullen, 14 La. Ann. 577; Rex v. Thomas, 7 Car. & P. 817; Reg. v. Monkhouse, 4 Cox, C. C. 55.

[3] People v. Rogers, 18 N. Y. 9, 72 Am. Dec. 484.

[4] Springfield v. State, 96 Ala. 81. But see United States v. King, 34 Fed. Rep. 302.

[5] State v. Greer, 22 W. Va. 800.

[6] Reg. v. Gamlen, 1 Fost. & F. 90; Rex v. Thomas, 7 Car. & P. 817; Marshall's Case, 1 Lewin, C. C. 76.

[7] State v. Johnson, 41 Conn. 584.

[8] Pennsylvania v. M'Fall, 1 Addison (Pa.) 255; King v. State, 90 Ala. 612; State v. Smith, 49 Conn. 376.

[9] People v. Belencia, 21 Cal. 544.

placed distinctly before the jury, however, the court ...uct them as to what might amount to such deliberation.[1] ...instruction as to intoxication should designate the effect ... a degree sufficient to render the accused incapable of ... premeditated design to kill.[2] Nor is refusal to instruct ...xing the grade of the crime, evidence of intoxication be... important and must be carefully weighed, erroneous ... court has charged that all evidence in the case is to ...ully weighed, and that the jury have to determine the im... of the testimony.[3] And an instruction that if the ac... committed the homicide under the influence of intoxication ...effects of a previous habit of intoxication upon his temper, ... the intoxication or the effect was not such or to such a ... as to wholly negative the legal inference of malice implied ... from the character and circumstances of the act and the ...ce of a provocation, he should be found guilty of murder in ...cond degree, is erroneous as an instruction upon the suffi...y and weight of evidence.[4]

§ 6. *Assaults.*

The voluntary drunkenness of the accused will not excuse an ...ult and battery though he was so intoxicated as to be uncon...ous of what he was doing, as the question of malice and intent ...ot involved.[5] But drunkenness may be taken into consideration ... a prosecution for stabbing, to determine whether the accused ...ted under a bona fide apprehension that his person or property ...as about to be attacked.[6] And the acts and declarations of a defendant in a prosecution for assault, and all the evidence in the ...se, may be considered in determining whether he was drunk or insane and with what intent he was actuated.[7] The crime of assault and battery with intent to kill, however, is separable into degrees so as to render evidence of intoxication of the accused

[1] People v. Williams, 43 Cal. 344.
[2] Garner v. State, 28 Fla. 113.
[3] People v. Kemmler, 119 N. Y. 580. And see Cross v. State, 55 Wis. 261.
[4] Gwatkin v. Com. 9 Leigh, 678, 30 Am. Dec. 264.
[5] Englehardt v. State, 88 Ala. 100; Carter v. State, 87 Ala. 113; Com. v. Malone, 114 Mass. 295; Tyra v. Com. 2 Met. (Ky.) 1.
[6] Marshall's Case, 1 Lewin, C. C. 76.
[7] Ross v. State, 62 Ala. 224.

was sober or intoxicated cannot affect the question of the existence or nonexistence of such adequate cause as might reduce the offense to that of manslaughter,[1] though intoxication may be considered in deciding whether the act was due to the provocation or to malice,[2] and to explain the conduct of the accused.[3] And voluntary drunkenness does not enlarge the right of self-defense, and is not available as a defense, where in consequence thereof the accused acted upon an exaggerated or unjustifiable belief as to the necessity for taking the life of another in defense of his own,[4] though a person is not bound to stand by and see his brother killed or suffer great bodily harm because the brother is so drunk as not to know his duty to retreat and get out of the way of bodily harm, or as to be physically unable to retreat,[5] and intoxication may be considered on the question whether the danger apprehended was sufficient to justify the act in question.[6] Murder in the second degree rests upon implied malice, and the jury may find its existence, subjecting the offender to a charge of murder in the second degree, though his intoxication was such as to disprove express malice.[7]

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[3] People v. Rogers, 18 N. Y. 9, 72 Am. Dec. 484.

[4] Springfield v. State, 96 Ala. 81. But see United States v. King, 34 Fed. Rep. 302.

[5] State v. Greer, 22 W. Va. 800.

[6] Reg. v. Gamlen, 1 Fost. & F. 90; Rex v. Thomas, 7 Car. & P. 817; Marshall's Case, 1 Lewin, C. C. 76.

[7] State v. Johnson, 41 Conn. 584.

[8] Pennsylvania v. M'Fall, 1 Addison (Pa.) 255; King v. State, 90 Ala. 612; State v. Smith, 49 Conn. 376.

[9] People v. Be[illegible]

mission is placed distinctly before the jury, however, the court may instruct them as to what might amount to such deliberation.[1] And an instruction as to intoxication should designate the effect thereof to a degree sufficient to render the accused incapable of forming a premeditated design to kill.[2] Nor is refusal to instruct that, in fixing the grade of the crime, evidence of intoxication becomes very important and must be carefully weighed, erroneous where the court has charged that all evidence in the case is to be carefully weighed, and that the jury have to determine the importance of the testimony.[3] And an instruction that if the accused committed the homicide under the influence of intoxication or the effects of a previous habit of intoxication upon his temper, yet if the intoxication or the effect was not such or to such a degree as to wholly negative the legal inference of malice implied by law from the character and circumstances of the act and the absence of a provocation, he should be found guilty of murder in the second degree, is erroneous as an instruction upon the sufficiency and weight of evidence.[4]

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The voluntary drunkenness of the accused will not excuse an assault and battery though he was so intoxicated as to be unconscious of what he was doing, as the question of malice and intent is not involved.[5] But drunkenness may be taken into consideration in a prosecution for stabbing, to determine whether the accused acted under a bona fide apprehension that his person or property was about to be attacked.[6] And the acts and declarations of a defendant in a prosecution for assault, and all the evidence in the case, may be considered in determining whether he was drunk or insane and with what intent he was actuated.[7] The crime of assault and battery with intent to kill, however, is separable into degrees so as to render evidence of intoxication of the accused

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[6] Marshall's Case, 1 Lewin, C. C. 76.
[7] Ross v. State, 62 Ala. 224.

admissible on a trial therefor.[1] Drunkenness may produce a state of mind in which the accused would be incapable of forming the intent necessary to constitute the crime.[2] And in determining whether an assault was committed with intent to kill it is material to inquire whether the defendant's mental faculties were so far overcome by the effect of intoxication as to render him incapable of entertaining the intent,[3]—the intent to kill and the state and condition of his mind being of the very essence of the crime.[4] One charged with assault with intent to kill, however, is not entitled to an acquittal upon proof that he was so drunk at the time as to be incapable of forming the necessary intent, but may be convicted of simple assault and battery.[5] So, drunkenness will not reduce a voluntary assault with intent to kill to an aggravated assault and battery.[6] Nor will mere intoxication authorize the court to charge the law applicable to the lesser grade of the offense.[7] The accused must have been so drunk as to have been incapable of entertaining the intent to take life.[8] But to be capable of entertaining an intent to kill an intoxicated person need not have the possession of his mental faculties so as to be capable of appreciating the moral quality of his actions, or of any intended result as being right or wrong.[9] And an instruction, that if the intoxication was such that the accused had so far lost his intelligence and reason that the jury have a reasonable doubt whether he was able to form and have a purpose to kill or to know what he was doing he should be found not guilty, is sufficiently favorable to the accused,[10] and may be followed by an instruction that intoxication is no

[1] People v. Odell, 1 Dak. 189; Lancaster v. State, 2 Lea, 575.

[2] Mooney v. State, 33 Ala. 419; Cross v. State, 55 Wis. 261.

[3] Roberts v. People, 19 Mich. 401; State v. Fiske, 63 Conn. 388; United States v. Bowen, 4 Cranch, C. C. 604; State v. O'Connor, 11 Nev. 416; Reg. v. Monkhouse, 4 Cox, C. C. 55. But see Donelson v. Posey, 13 Ala. 752.

[4] State v. O'Connor, 11 Nev. 416.

[5] Mooney v. State, 33 Ala. 419. And see State v. Grear, 29 Minn. 221; People v. Odell, 1 Dak. 189.

[6] Jeffries v. State, 9 Tex. App. 598.

[7] Pugh v. State, 2 Tex. App. 539.

[8] Walker v. State, 85 Ala. 7.

[9] Roberts v. People, 19 Mich. 401.

[10] State v. Fiske, 63 Conn. 388. And see State v. Grear, 29 Minn. 221.

excuse.[1] But one who commits an assault entertaining an intent to kill, which he would not have entertained but for intoxication, is responsible for the intent as well as for the act.[2] It is a question for the jury whether the accused was so far intoxicated as to be unable to form an intent to kill,[3] and for the purpose of determining the question the jury should take into consideration the nature and circumstance of the assault and actions and conduct of the accused, and his declarations before, at the time of, and after the assault, and consider the nature of the intent, and what degree of mental capacity was necessary to enable him to entertain it.[4] A person on trial for assault with intent to kill, in which the jury has been sufficiently instructed with regard to the specific intent essential to the commission of the crime, however, who desires that the jury shall be informed as to the law with regard to the effect of intoxication upon such intent, must ask additional instructions covering the supposed defect.[5] And a failure to charge as to the effect of intoxication on responsibility for an attempt to kill is not error when the entire proof shows that the accused was sober enough to understand the nature of the act and that it was not caused by a sudden outburst of passion.[6] And error in instructing that intoxication cannot reduce the degree of the offense is harmless when the accused receives the smallest legal punishment for the offense.[7] Nor is it error to refuse to charge as to the weight of evidence of intoxication when the evidence itself was permitted to go to the jury.[8] And refusal to charge on drunkenness is not error where temporary insanity from the recent use of intoxicating liquors, or drunkenness incapacitating a party to form an intent, would not have reduced the crime lower, if death had resulted, than murder in the second degree.[9]

[1] Cross v. State, 55 Wis. 261.

[2] Roberts v. People. 19 Mich. 401.

[3] Com. v. Hagenlock, 140 Mass. 125. And see State v. Barbee, 92 N. C. 820.

[4] Roberts v. People, 19 Mich. 401.

[5] Bramlette v. State, 21 Tex. App. 611, 57 Am. Rep. 622.

[6] Carpenter v. Com. 92 Ky. 452.

[7] Ayres v. State (Tex. Crim. App.) 26 S. W. 396.

[8] Nichols v. State, 8 Ohio St. 435.

[9] Hernandez v. State, 32 Tex. Crim. Rep. 271. And see State v. Bowen, Houst. Crim. Rep. (Del.) 91.

Nor is it reversible error to refuse to instruct that the jury may infer from the fact of intoxication that the act was not done with the particular intent necessary to constitute the offense, where the testimony is not preserved in the record, so that it cannot be seen what evidence there was of intent and how great was the intoxication.[1] And an instruction, that if the defendants were so deeply intoxicated that they were incapable of forming such an intent they should be acquitted, is properly refused as misleading where there was more than one defendant, as tending to lead to the belief that neither could be convicted unless all entertained the belief.[2]

So, proof of intoxication may be considered in a prosecution for an assault with intent to wound, as the intent is of the essence of the offense, not as an excuse but to show that no crime was committed.[3] And an intention to do great bodily harm must in fact exist to justify a conviction for assault with such intent, and if the accused was so intoxicated that he did not know what he was doing he was incapable of forming such intent.[4] When a deadly weapon was used the fact that the accused was drunk does not alter the nature of the case. But when he intemperately uses a weapon which is not deadly his drunkenness may be considered as tending to diminish the inference of a malicious intent.[5]

And one who makes an assault while so drunk that he does not know what he is doing and is unable to form a criminal intent should be acquitted on a charge of assault with intent to rob.[6]

So, one who was so drunk at the time as to be incapable of forming a specific intent cannot be found guilty of an assault with intent to ravish.[7] And where a person committing a rape was so far overcome by intoxication that he was not conscious of what he was doing or that the means used were naturally adapted

[1] State v. White, 14 Kan. 538.
[2] Crosby v. People, 137 Ill. 325.
[3] Cline v. State, 43 Ohio St. 332.
[4] State v. Garvey, 11 Minn. 154.
[5] Rex v. Meakin, 7 Car. & P. 297.
[6] Scott v. State, 12 Tex. App. 31.
[7] State v. Donovan, 61 Iowa, 369. But see State v. Murphy, 118 Mo. 7.

to effect his purpose, and that he had not sufficient capacity to entertain the intent, such intent should not be inferred from his acts.[1] Under the Texas statute declaring that drunkenness is no excuse for crime, however, it has been held that drunkenness will not excuse rape though the mind of the party was so far overcome as to render him incapable of forming an intent.[2] And an instruction in a prosecution for assault with intent to ravish, calling the attention of the jury to certain facts and circumstances and directing them that if the accused was incapable of forming a design or purpose to ravish they could not find him guilty has been held objectionable as opening too wide a field of inquiry as to his capacity to exercise his will and distinguish between right and wrong.[3]

§ 7. *Attempt to commit suicide.*

Drunkenness is no excuse for an attempt to commit suicide, but it is a material fact for the consideration of the jury in arriving at a conclusion as to whether the accused really intended to destroy his life.[4] And evidence that the accused was so drunk at the time that he did not know what he did is sufficient to negative the intent to commit suicide.[5]

§ 8. *Involuntary drunkenness.*

Involuntary drunkenness may be a palliation, and under some circumstances an excuse, for unlawful acts.[6] Drunkenness is an excuse for crime when occasioned through the fraud, contrivance, or force of some other person or persons for the purpose of causing the perpetration of the offense.[7] And it is competent to defend, in a prosecution for a criminal act, upon the ground that the accused was under the influence of intoxicating liquor caused by the fraud or contrivance of another for the purpose of inducing him to commit or aid in committing the act.[8] Intoxication is

[1] Reagan v. State, 28 Tex. App. 227.

[2] Crew v. State (Tex. Crim. App.) 25 S. W. 14. See also State v. Murphy, 118 Mo. 7.

[3] State v. Donovan, 61 Iowa, 369.

[4] Reg. v. Doody, 6 Cox, C. C. 463.

[5] Reg. v. Moore, 3 Car. & K. 319, 16 Jur. 750.

[6] Carter v. State, 12 Tex. 500, 62 Am. Dec. 539.

[7] People v. Nichol, 34 Cal. 212; People v. Robinson, 2 Park. Crim. Rep. 235.

[8] Bartholomew v. People, 104 Ill. 605, 44 Am. Rep. 97.

not rendered involuntary so as to affect responsibility for homicide, however, by the fact that the accused became intoxicated in whole or in part upon liquor furnished by or at the request or solicitation of the person whom he killed.[1] And that one is slightly under the influence of liquor is not a legal excuse for crime although the liquor is taken involuntarily.[2] Nor is a person excused from criminal liability by the fact that others had given him liquor in a social way with no intent or purpose at the time of inducing him to commit a crime, but afterwards, when he had become so drunk that he did not know what he was doing, procured him to commit the act in question; though if they procured the drunkenness for that purpose they, and not he, would be guilty.[3] So, where a person from any cause, as sickness, want of sleep, and the like, is reduced to such a state that a smaller quantity of stimulant would intoxicate him than would be required if he were in health, he will not be held responsible while intoxicated under such circumstances, inasmuch as his acts are not voluntary, but produced by disease.[4]

§ 9. *Wilful drunkenness; insane tendencies.*

If a man designing to commit a crime drinks to intoxication either to excite his animal courage or to prepare some excuse, his intoxication furnishes no excuse for the criminal act.[5] The drunkenness of a person committing a homicide is neither a legal excuse nor a mitigating circumstance if that condition was the offspring of premeditated crime, or was known to be the parent of delusion, dangerous to the lives of others.[6] And an instruction in a prosecution for homicide assuming that the fact of drunkenness at the time is so inconsistent with malice that it becomes the duty of the state to trace its existence to a period anterior to the

[1] State v. Sopher, 70 Iowa, 494.
[2] Com. v. Gilbert, 165 Mass. 45.
[3] McCook v. State, 91 Ga. 740.
[4] Reg. v. Mary R. (1887) Palles, C. B., cited by N. Kerr in "Inebriety," 2d ed. 395.
[5] Smith v. Com. 1 Duv. 224; Blimm v. Com. 7 Bush, 320; Garner v. State, 28 Fla. 113; Ferrell v. State, 43 Tex. 502; Willis v. Com. 32 Gratt. 929. And see State v. Robinson, 20 W. Va. 713, 43 Am. Rep. 799.
[6] Blimm v. Com. 7 Bush, 320.

drunkenness, and show affirmatively that the drinking was for the purpose of committing the deed, is erroneous.[1] Nor is the criminal responsibility of one who commits a criminal act while intoxicated affected by the fact that by reason of former injuries or constitutional infirmities he is more liable to be maddened by liquor than other men,[2] where, knowing this, he drinks voluntarily, having power to abstain.[3] And he must be held to have intended the extraordinary derangement as well as the intoxication and the results produced by it, and the same degree of mental incapacity would be required to render him incapable of understanding the intent, whether caused by the intoxication combined with the injury or infirmity, or by the intoxication alone.[4] But one who had no reason from past experiences or information to believe that such extraordinary effects were likely to result from intoxication should not be held responsible for such effect where his acts result from it, and not from the effect of drunkenness or from previously formed intentions.[5]

§ 10. *Insanity induced by alcoholism.*

Crime committed by a person while intoxicated, to be punishable, must be the immediate result of a fit of intoxication while it lasts, as distinguished from insanity remotely occasioned by previous bad habits.[6] Permanent insanity relieves from criminal responsibility though produced by habitual drunkenness.[7] It

[1] State v. Ashley, 45 La. Ann. 1036.

[2] Choice v. State, 31 Ga. 424.

[3] Upstone v. People, 109 Ill. 169; People v. Garbutt, 17 Mich. 9, 97 Am. Dec. 162; Roberts v. People, 19 Mich. 401; State v. Wilson, 104 N. C. 868.

[4] Roberts v. People, 19 Mich. 401.

[5] Roberts v. People, 19 Mich. 401; Blimm v. Com. 7 Bush, 320; Reg. v. Mountain, Leeds Assizes, April, 1888, Pollock, B.

[6] State v. Hundley, 46 Mo. 414; United States v. Drew, 5 Mason, 28.

[7] State v. Robinson, 20 W. Va. 713, 43 Am. Rep. 799; Beasley v. State, 50 Ala. 149, 20 Am. Rep. 292; Cavaness v. State, 43 Ark. 331; Beck v. State, 76 Ga. 452; State v. Harrigan, 9 Houst. (Del.) 369; Fisher v. State, 64 Ind. 435; Bradley v. State, 31 Ind. 492; Bailey v. State, 26 Ind. 422; Hill v. State, 42 Neb. 503; O'Grady v. State, 36 Neb. 320; Cornwell v. State, Mart. & Y. 147; Ward v. State, 19 Tex. App. 664; Boswell v. Com. 20 Gratt. 860; United States v. Clarke, 2 Cranch, C. C. 158; United States v. Drew, 5 Mason, 28; Burrow's Case, 1 Lewin, C. C. 75; Rennie's Case, 1 Lewin, C. C. 76. And see Garner v. State, 28 Fla. 113; State v. Coleman, 27 La. Ann. 691; Com. v. Crozier, 1 Brewst. (Pa) 349.

affects criminal responsibility in the same way as insanity produced by any other cause.[1] The word "insanity" embraces every species of mental unsoundness whatever may be its source or cause, and includes, not only that derangement of mind produced by disease of the brain that is recognized by law as a defense to crime which is produced solely from it, but also that condition of subverted reason which may be produced by intoxication.[2] And continued drunkenness which has produced such a condition of insanity or imbecility as would relieve from responsibility for criminal acts if produced by any other cause may be shown as a defense.[3] And permitting the jury in a prosecution for homicide to read newspaper accounts of a celebrated trial then in progress in which the idea was ridiculed that there was any such thing as moral insanity, terming dipsomania drunkenness, is a sufficient ground for setting aside the verdict and ordering a new trial.[4] At common law, permanent insanity produced by the use of ardent spirits was not an excuse for crime, but was a complete defense establishing that there was no crime, though some of the books call it an excuse.[5]

So, delirium tremens, or mania a potu, although a result or consequence of continued intoxication, constitutes actual insanity, rendering the person afflicted irresponsible for his criminal acts,[6] affecting responsibility for crime in the same way as insanity pro-

[1] State v. Martin, 4 N. J. L. J. 252, 3 Crim. L. Mag. 44; Fonville v. State, 91 Ala. 39; People v. Travers, 88 Cal. 233; State v. Riley, 100 Mo. 493; People v. Rogers, 18 N. Y. 9, 72 Am. Dec. 484; Nevling v. Com. 98 Pa. 323; Com. v. Platt, 11 Phila. 421; United States v. Forbes, Crabbe, 558; And see State v. Dillahunt, 3 Harr. (Del.) 551.

[2] Gunter v. State, 83 Ala. 96. And see Stuart v. State, 1 Baxt. 178.

[3] Hill v. State, 42 Neb. 503.

[4] State v. Robinson, 20 W. Va. 713, 43 Am. Rep. 799.

[5] Lyle v. State, 31 Tex. Crim. Rep. 103.

[6] State v. Hurley, Houst. Crim. Rep. (Del.) 28; State v. Davis, 9 Houst. (Del.) 407; State v. Dillahunt, 3 Harr. (Del.) 551; State v. McGonigal, 5 Harr. (Del.) 510; State v. O'Neil, 51 Kan. 651; O'Brien v. People, 36 N. Y. 276, 48 Barb. 274; People v. O'Connell, 62 How. Pr. 436; State v. Potts, 100 N. C. 457; Maconnehey v. State, 5 Ohio St. 77; Stuart v. State, 1 Baxt. 178; Carter v. State, 12 Tex. 500, 62 Am. Dec. 539; De Alberts v. State, 34 Tex. Crim. Rep. 508; Erwin v. State, 10 Tex. App. 700; United States v. McGlue, 1 Curt. C. C. 1; Reg. v. Davis, 14 Cox, C. C. 563, 28 Moak, Eng. Rep. 657. And see People v. Ferris, 55 Cal. 588.

duced from any other cause.[1] And it is competent for the defendant in a criminal prosecution to show that from a continuous use of ardent spirits his mind had become weakened, and that he was suffering at the time from an attack of delirium tremens,[2] though the diseased condition is temporary.[3] And a statute providing that the use of intoxicating liquors shall not destroy responsibility for crime, when voluntary, does not apply to delirium tremens or mania a potu generally caused by abstinence from liquor after long indulgence, which is an absolute defense to crime.[4] So, an instruction proceeding upon the idea that no temporary condition of the mind produced by drunkenness can avail as a defense is error where there is evidence of delirium tremens, as it may result immediately from drunkenness.[5] Failure of the court to define delirium tremens, or mania a potu, however, is not error where the jury was charged as to what degree of unsoundness of mind would relieve the accused, whether the disease be permanent or temporary, or caused by the voluntary use of ardent spirits or otherwise.[6] Nor is it error to refuse to charge as to murder in the second degree where there was no question of temporary insanity from the recent use of ardent spirits or any evidence of delirium tremens or settled insanity, it being a case of hereditary insanity or murder with express malice.[7] So, a refusal to instruct for an acquittal if the jury were satisfied that the accused was suffering from the effects of delirium tremens is not error where the charge was full upon the subject of insanity arising from any cause and upon the effects of the use of intoxicating liquors, and there was no proof of delirium tremens;[8] or where they were told to acquit if he was suffering from any species of insanity which prevented him from

[1] Maconnehey v. State, 5 Ohio St. 77; State v. Davis, 9 Houst. (Del.) 407; State v. Dillahunt, 3 Harr. (Del.) 551. And see Com. v. Crozier, 1 Brewst. (Pa.) 349.

[2] Territory v. Davis (Ariz.) 10 Pac. 359.

[3] State v. Potts, 100 N. C. 457.

[4] Kelley v. State, 31 Tex. Crim. Rep. 216.

[5] Erwin v. State, 10 Tex. App. 700.

[6] Stuart v. State, 1 Baxt. 178. And see Williams v. State, 25 Tex. App. 76.

[7] McLeod v. State, 31 Tex. Crim. Rep. 331. And see People v. Robinson, 2 Park. Crim. Rep. 235.

[8] Spence v. State, 15 Lea, 539.

distinguishing between right and wrong or acting from deliberation or premeditation.[1] An instruction that the jury might judge from the physical appearance and manner of the accused on the trial whether he could have been insane from delirium tremens six months before, however, is error where there is no proof that the disorder leaves an infallible mark of its existence.[2] And a general instruction in an action in which the evidence tended to show hereditary insanity, permanent insanity produced by alcoholism, delirium tremens, and temporary insanity caused by an overdose of morphine, only mentioning the theory of delirium tremens, is objectionable as tending to confine the deliberation of a jury to that particular phase of the defense, though it was sufficiently comprehensive to embrace every view.[3]

Within this doctrine to relieve from criminal responsibility it is not necessary that the accused should have been actually drunk at the time of the commission of the act;[4] and one who is insane when sober is not rendered criminally responsible by the fact that he was intoxicated when the criminal act was committed;[5] and though the use of intoxicating liquors was recent if it had also been long and continuous, and the long and continuous use aided by the recent use rendered the party insane, such insanity would be a defense.[6] So, the drinking of liquor in sufficient quantities to produce intoxication, after which the party was struck a blow upon the head which puts him in such a condition as not to know what he is doing or be able to distinguish right from wrong, does not constitute voluntary intoxication, but is sufficient to create criminal irresponsibility, where the liquor alone would not have produced such a condition.[7] And where the basis of the defense is that the insanity of the accused was superinduced through the agency and consequential operation of a disorder caused by an injury and the drinking of liquor, he is entitled to have this theory clearly recognized in the charge, and a charge that they

[1] People v. Mills, 98 N. Y. 176.

[2] Bowden v. People, 12 Hun, 85.

[3] State v. Rippy, 104 N. C. 752.

[4] Territory v. Davis (Ariz.) 10 Pac. 359; De Alberts v. State, 34 Tex. Crim. Rep. 508.

[5] Choice v. State, 31 Ga. 424; Com. v. Baker, 11 Phila. 631.

[6] Ward v. State, 19 Tex. App. 664.

[7] Leggett v. State, 21 Tex. App. 384.

are to be regarded as separate and unconnected factors is erroneous.[1] And an instruction that if the accused was actually insane, and such condition was directly or even remotely caused by voluntarily drinking intoxicating liquors, or by other causes combined with such drinking, he must be held responsible, is misleading and erroneous where there is evidence tending to show head injury received in childhood, and that he was in fact insane as distinguished from mere intoxication.[2] The test as to insanity as a defense in a criminal prosecution, that the mind must have been in such a condition at the time that the accused did not know the consequence of his act and did not know right from wrong with reference to it, applies to defenses of drunkenness;[3] it must amount to a deprivation of reason and judgment, and make the accused totally incapable of forming a deliberate and preconceived design, or of entertaining a rational thought or motive,[4] it must be settled insanity, and not merely a temporary condition produced by the use of intoxicating liquors,[5] and must have resulted in a fixed mental disease or one of some duration.[6] A person committing a crime while drunk who is peaceable and entirely rational when sober but quarrelsome when drinking is not insane in the sense that will excuse crime.[7] And evidence that a soldier shot his officer without apparent motive, and that he had been addicted to drink and was suffering under depression, is not sufficient to sustain the defense of insanity.[8] Nor is the fact that a

[1] People v. Cummins, 47 Mich. 334.

[2] Terrill v. State, 74 Wis. 278.

[3] Casat v. State, 40 Ark. 511; State v. Erb, 74 Mo. 199; Evers v. State, 31 Tex. Crim. Rep. 318, 18 L. R. A. 421. And see Cavaness v. State, 43 Ark. 331; State v. Harrigan, 9 Houst. (Del.) 369; State v. McGonigal, 5 Harr. (Del.) 510; Beck v. State, 76 Ga. 452; Fisher v. State, 64 Ind. 435; State v. O'Neil, 51 Kan. 651, 24 L. R. A. 555; State v. Riley, 100 Mo. 493; O'Brien v. People, 48 Barb. 274; Ward v. State, 19 Tex. App. 664; United States v. Clarke, 2 Cranch, C. C. 158; United States v. McGlue, 1 Curt. C. C. 1; Reg. v. Davis, 14 Cox, C. C. 563, 28 Moak. Eng. Rep. 657; Burrow's Case, 1 Lewin, C. C. 75; Rennie's Case, 1 Lewin, C. C. 76; Ross v. State, 62 Ala. 224.

[4] State v. Harrigan, 9 Houst. (Del.) 369.

[5] People v. Travers, 88 Cal. 233; State v. McGonigal, 5 Harr. (Del.) 510.

[6] Lanergan v. People, 50 Barb. 266.

[7] McCarty v. Com. 14 Ky. L. Rep. 285.

[8] Reg. v. Dixon, 11 Cox, C. C. 341.

person had on prior occasions been so drunk that he was deprived of reason, and that on such occasions his acts were like those of an insane man, sufficient to establish his want of reason and responsibility at the time of the subsequent commission of an offense.[1] So, evidence that the accused had used intoxicating liquors to excess for several years, and that he would work several days, get his pay and get drunk and stay so as long as he could get liquor, as often as three or four times a month, and that he had delirium tremens a number of times and was dull, nervous, and shaky,—is not sufficient to establish permanent mental disease.[2] Nor is evidence of a great amount of senseless extravagance and absurd eccentricities of conduct, coupled with habits of excessive intemperance causing fits and delirium tremens.[3] Isolated instances scattered through several years tending to show insanity, which might be attributed to excessive use of liquor, and acts which are not necessarily signs of insanity, are not sufficient to show it as against evidence of competency to transact business and that the party was treated in business and social intercourses as a sane man.[4] So, refusal to instruct on the question of insanity induced by intoxication is not error where the entire proof shows that the accused was sober enough to fully comprehend the nature of his act and that it was not due to a sudden outburst of passion but was the result of a fixed purpose;[5] or where it clearly appears that his condition arose from voluntary drunkenness;[6] or where the only evidence was that the accused had drunk about fifteen drinks of mescal and pulque, and his own testimony that he was so drunk that he did not know what he was doing.[7] And it has been held that a boy thirteen years of age who is put in a state of mental derangement by drinking liquor and smoking a cigar which the prosecutor sold him at the time, and who commits an offense while in that condition, should be acquitted, as it was a wrongful act to sell him the liquor.[8]

[1] State v. Hart, 29 Iowa, 268.
[2] State v. Riley, 100 Mo. 493.
[3] Reg. v. Leigh, 4 Fost. & F. 915.
[4] Hoard v. State, 15 Lea, 318.
[5] Carpenter v. Com. 92 Ky. 452.
[6] Buckhannon v. Com. 86 Ky. 110; Wilkerson v. Com. 88 Ky. 29.
[7] Delgado v. State, 34 Tex. Crim. Rep. 157.
[8] Com. v. French, Thacher, Crim. Cas. 163.

The accused in a criminal prosecution who alleges insanity from alcoholism as a defense is entitled to have all the facts and circumstances bearing upon the condition of his mind fairly submitted to the jury, which must determine as to his responsibility,[1] and the question as to whether he was suffering from temporary insanity produced immediately by intoxication, or from fixed insanity, is for the determination of the jury,[2] and its determination will not be disturbed on appeal unless it is clearly contrary to the evidence.[3] But the jury should be instructed in a clear and pointed manner as to the law applicable to permanent insanity induced by alcoholism or delirium tremens.[4] And evidence of ill-treatment and bad conduct by the accused toward his wife, running back through several years, including threats to take her life, is admissible, in a prosecution for an assault upon her with intent to kill, to meet his theory of insanity produced by alcoholism, as tending to show malice, ill-will, and motive, and as explanatory of his real purpose.[5] Where the defense of temporary insanity proceeds upon the theory that it was induced by the operation of drunkenness upon a mind rendered unsound by an injury to the brain, it is error to leave the question of criminal responsibility to be determined upon the facts of injury and mental unsoundness alone, or upon the effect of drunkenness apart from the other facts.[6]

§ 11. *Intoxication under the Texas statute.*

It is provided by statute in Texas that neither intoxibation nor temporary insanity produced by the voluntary recent use of ardent spirits shall constitute any excuse for the commission of crime, nor shall intoxication mitigate either the degree or the penalty of a crime; but evidence of temporary insanity produced by such use of ardent spirits may be introduced in mitigation of a penalty, and in cases of murder to determine the degree.[7] The

[1] Territory v. Davis (Ariz.) 6 Lawson, Crim. Defenses, 630.
[2] Upstone v. People, 109 Ill. 169; State v. Pike, 49 N. H. 399.
[3] Upstone v. People, 109 Ill. 169.
[4] Erwin v. State, 10 Tex. App. 700.
[5] Hall v. State, 31 Tex. Crim. Rep. 565.
[6] People v. Cummins, 47 Mich. 334.
[7] Texas Penal Code, art. 40a.

object of this statute was to eliminate mere intoxication as a defense in any criminal prosecution, regardless of the constituent elements of the crime, and to prevent temporary insanity from being a defense to any crime, but to permit it to be introduced in murder cases to determine the degree, and in all criminal prosecutions to mitigate or lessen the penalty;[1] and it means that intoxication or temporary insanity produced by the voluntary use of ardent spirits will not excuse crime or necessarily mitigate the penalty prescribed by law therefor, but that such state of mind may be considered by the jury in mitigation of the prescribed penalty.[2] Mere intoxication from the recent use of ardent spirits will not excuse or mitigate the degree of the penalty unless the intoxication went to the extent of producing temporary insanity,[3] which is that degree of insanity which deprives a person of capacity [or power to distinguish between right and wrong as to the particular act charged;[4] and evidence of intoxication not producing temporary insanity is immaterial and its rejection is not error;[5] and refusal to charge with reference to insanity produced by the recent use of intoxicating liquors is not error where the evidence only shows a state of drunkenness short of temporary insanity,[6] and a continuance will not be granted to procure such evidence.[7] In order to raise the question of temporary incapacity from the voluntary recent use of liquor the drinking must precede the crime, and the effect of the intoxication must have been operative on the mind of the accused at the time to the extent of rendering him temporarily insane,[8] and when such temporary insanity is established the jury may regard it in giving a lower punishment, but not an acquittal.[9] And a person committing a

[1] Evers v. State, 31 Tex. Crim. Rep. 318, 18 L. R. A. 421; Lyle v. State, 31 Tex. Crim. Rep. 103.

[2] Williams v. State, 25 Tex. App. 76.

[3] Evers v. State, 31 Tex. Crim. Rep. 318, 18 L. R. A. 421; Kelley v. State, 31 Tex. Crim. Rep. 216; De Alberts v. State, 34 Tex. Crim. Rep. 508; Houston v. State, 26 Tex. App. 657; Clore v. State, 26 Tex. App. 624.

[4] De Alberts v. State, 34 Tex. Crim. Rep. 508; Kelley v. State, 31 Tex. Crim. Rep. 216.

[5] Ex parte Evers, 29 Tex. App. 539.

[6] Delgado v. State, 34 Tex. Crim. Rep. 157.

[7] Sherar v. State, 30 Tex. App. 349.

[8] Gonzales v. State, 31 Tex. Crim. Rep. 508.

[9] Kelley v. State, 31 Tex. Crim. Rep. 216.

homicide is not entitled to bail because of his mere intoxication at the time.[1]

A person committing a crime whose intoxication was so excessive as to render him unconscious that the act he was doing was wrong and would subject him to punishment, however, is not prevented from pleading his condition in defense;[2] and he may show his intoxication where the crime consists of an act combined with a particular intent, or of the act and the particular intent, for the purpose of showing whether his mental faculties were so far overcome as to render him incapable of entertaining the intent, which is one of the necessary ingredients of the crime, and without which no crime would have been committed.[3] Thus, temporary insanity produced by the voluntary recent use of ardent spirits may be considered in determining the degree of the offense in murder cases.[4] And evidence that a person accused of perjury was temporarily insane from drinking at the time he made the false statement may be looked to in connection with other evidence tending to show the condition of his mind in passing upon the question whether he made it wilfully and deliberately,[5] though such evidence in a prosecution for homicide is insufficient to require the submission of the issue of murder in the second degree.[6] Evidence of intoxication at the time of the commission of a criminal act, however, is admissible only as bearing upon the question of criminal intent;[7] and ill treatment of, and bad conduct toward, and threats against, the person injured are admissible, in a prosecution for an assault with intent to kill, to meet the theory of temporary insanity produced by the recent use of intoxicating liquors as tending to show malice, ill-will, and motive, and as explanatory of the real purpose of the accused.[8]

[1] Ex parte Evers, 29 Tex. App. 539.

[2] Evers v. State, 31 Tex. Crim. Rep. 318, 18 L. R. A. 421.

[3] Reagan v. State, 28 Tex. App. 227; Fisher v. State, 30 Tex. App. 502.

[4] Houston v. State, 26 Tex. App. 657; Ex parte Evers, 29 Tex. App. 539; Ward v. State, 19 Tex. App. 664; Rather v. State, 25 Tex. App. 624.

[5] Fisher v. State, 30 Tex. App. 502.

[6] Burkhard v. State, 18 Tex. App. 599.

[7] Scott v. State, 12 Tex. App. 31.

[8] Hall v. State, 31 Tex. Crim. Rep. 565.

§ 12. *Intoxication of the person injured.*

Rape may be committed upon a person who is insensible from drunkenness, though no resistance is made, and the fact that the liquor was given her for the purpose of exciting her only does not affect the nature of the act.[1] And a man may be guilty of the crime of adultery and be convicted alone therefor though the participant was in such a state of stupefaction from liquor as to be incapable of giving consent, and the crime is none the less adultery because it is also rape.[2] So, evidence in a prosecution for homicide that the person killed was under the influence of intoxicating liquors is admissible,[3] as tending to show that he was incapable of attack or defense;[4] and evidence as to what the person killed did and said just previous to the act is admissible on behalf of the prosecution, where the defense has introduced evidence to show that he was intoxicated at the time, to establish the theory that the killing was in self-defense.[5] And it is competent upon a trial for larceny to show that liquor drank by the prosecuting witness had been drugged, and the potency of such drug, and the condition to which it reduced him.[6] And the intoxication of a wife who was left exposed to the cold all night by her husband, which caused her death, may be considered in a prosecution against him for his failure to care for her, in order to shed light upon the question whether or not she was too violent to be controlled by him.[7] But evidence in a prosecution for homicide as to whether the witness had seen the person killed drink or not is not admissible on behalf of the prosecution to rebut evidence offered by the defense to show that the person killed was intoxicated, to establish the theory of self-defense, though it is admissible to rebut evidence that he was boisterous, quarrelsome, and dangerous when intoxicated.[8]

[1] Reg. v. Camplin, 1 Car. & K. 746, 1 Den. C. C. 89.
[2] Com. v. Bakeman, 131 Mass. 577, 41 Am. Rep. 248.
[3] Holmes v. State, 11 Tex. App. 233.
[4] State v. Horne, 9 Kan. 119.
[5] State v. Abrams, 11 Or. 169.
[6] State v. Buckley, 72 N. C. 358.
[7] Territory v. Manton, 8 Mont. 95.
[8] State v. Abrams, 11 Or. 169.

II. Alcoholism as affecting contracts.

§ 1. *What intoxication affects generally.*

A contract will be set aside when a party thereto was deprived of his reason at the time by intoxication or from the effects of intoxication,[1] or where the attendant facts and circumstances lead the court to believe that the enforcement would be unjust and inequitable.[2] Mental incompetency intentionally and knowingly to perform an act, though produced by intemperance, exempts from legal responsibility therefor.[3] And courts will protect a party against his own acts done in such a condition at his instance or that of his conservator or representative, though he brought on that condition himself.[4] Drunkenness which absolutely destroys reason renders the person incompetent to contract while it lasts, as it renders him incapable of giving consent,[5] whether or not the other party knew of his condition, though such knowledge might be material on the question of damages,[6] and though the intoxication was voluntary and not produced by the other party.[7] And the defendant in an action on such a

[1] Phelan v. Gardner, 43 Cal. 306; Menkins v. Lightner, 18 Ill. 282; Hale v. Stery, 7 Colo. App. 165; Harbison v. Lemon, 3 Blackf. 51, 23 Am. Dec. 376; Newell v. Fisher, 1 Smedes & M. 431, 49 Am. Dec. 66; Morris v. Clay, 8 Jones, L. 216; Prentice v. Achorn, 2 Paige, 30; Klohs v. Klohs, 61 Pa. 245; Williams v. Inabnet, 1 Bail. L. 343; Barrett v. Buxton, 2 Aik. (Vt.) 167, 16 Am. Dec. 691; Pitt v. Smith, 3 Campb. 33; Fenton v. Holloway, 1 Starkie, 126; Cole v. Robins, Bull. N. P. 172.

[2] Hale v. Stery, 7 Colo. App. 165.

[3] Gates v. Meredith, 7 Ind. 440; Jenners v. Howard, 6 Blackf. 240; Wade v. Colvert, 2 Mill, Const. 27, 12 Am. Dec. 652; Cole v. Robins, Bull. N. P. 172; Bliss v. Connecticut & P. Rivers R. Co. 24 Vt. 424. And see Drummond v. Hopper, 4 Harr. (Del.) 327.

[4] Menkins v. Lightner, 18 Ill. 282.

[5] Clifton v. Davis, 1 Pars. Sel. Eq. Cas. 31; Longhead v. B. F. Coombs Commission Co. 2 Mo. App. Rep. 1017; Phillips v. Moore, 11 Mo. 600; Wade v. Colvert, 2 Mill, Const. 27, 12 Am. Dec. 652; Mitchell v. Kingman, 5 Pick. 431; Cummings v. Henry, 10 Ind. 109; Gore v. Gibson, 13 Mees. & W. 62; Cooke v. Clayworth, 18 Ves. Jr. 12.

[6] Hawkins v. Bone, 4 Fost. & F. 311; Reinskopf v. Rogge, 37 Ind. 207.

[7] Mansfield v. Watson, 2 Iowa, 111; Bush v. Breinig, 113 Pa. 310, 57 Am. Rep. 469; Berkley v. Cannon, 4 Rich. L. 136; French v. French, 8 Ohio, 214, 31 Am. Rep. 441; Barrett v. Buxton, 2 Aik. (Vt.) 167, 16 Am. Dec. 691; Wigglesworth v. Steers, 1 Hen. & M. 70, 3 Am. Dec. 602.

contract may give in evidence under a plea of *non est factum* that he was made to sign it when he was so drunk that he did not know what he was doing.[1]

It cannot be said as a rule of law, however, that because a man is a drunkard he is of unsound mind.[2] Intoxication which will invalidate a contract in the absence of fraud must have been such as to have utterly deprived the party of reason and understanding,[3] or as to suspend the reason and understanding;[4] a complete state of intoxication,[5] rendering the party incapable of transacting business,[6] or of giving a note, or of exercising judgment,[7] depriving him of consciousness of what he is doing,[8] or of power to understand the consequences of his acts.[9] And meagre and inconclusive evidence of acts which might have been attributed to intoxication as well as insanity will not justify a finding that a party thereto was so insane as not to know what he was doing.[10] It is not sufficient that the contract was made under undue excitement from the use of liquor.[11] And an instruction that a note sued on was void if the defendant was induced to sign it while so much under the influence of liquor that his reason, memory, and judgment were impaired, is erroneous.[12] To render a contract

[1] Cole v. Robins, Bull. N. P. 172.

[2] Estate of Lang, 65 Cal. 19.

[3] Com. v. McAnany, 3 Brewst. (Pa.) 292; Schramm v. O'Connor, 98 Ill. 539; Harbison v. Lemon, 3 Blackf. 51, 23 Am. Dec. 376; Willcox v. Jackson, 51 Iowa, 208; Johnson v. Phifer, 6 Neb. 401; Taylor v. Patrick, 1 Bibb, 168; Burns v. O'Rourke, 5 Robt. 649; Foot v. Tewksbury, 2 Vt. 97; Woodson v. Gordon, Peck. (Tenn.) 196, 14 Am. Dec. 743. And see Caulkins v. Fry, 35 Conn. 170; Miller v. Finley, 26 Mich. 249, 12 Am. Rep. 306; Nagle v. Baylor, 3 Dru. & W. 60; Pickett v. Sutter, 5 Cal. 412.

[4] Cavender v. Waddingham, 5 Mo. App. 457; Bush v. Breinig, 113 Pa. 310, 57 Am. Rep. 469.

[5] Pitt v. Smith, 3 Campb. 33; Loftus v. Maloney, 89 Va. 576.

[6] Arnold v. Hickman, 6 Munf. 15; Henry v. Ritenour, 31 Ind. 136.

[7] Reynolds v. Dechaums, 24 Tex. 174, 76 Am. Dec. 101; Lee v. Ware, 1 Hill, L. 313.

[8] Mansfield v. Watson, 2 Iowa, 111; Taylor v. Purcell, 60 Ark. 606; Johns v. Fritchey, 39 Md. 259; Foot v. Tewksbury, 2 Vt. 97.

[9] Taylor v. Purcell, 60 Ark. 606.

[10] White v. Davis, 42 N. Y. S. R. 901.

[11] Johnson v. Phifer, 6 Neb. 401; Foot v. Tewksbury, 2 Vt. 97.

[12] Taylor v. Purcell, 60 Ark. 606.

voidable upon the ground of intoxication it must have been such as to drown reason, memory, and judgment, and impair the mental faculties to an extent which would render the party *non compos mentis* for the time being, especially where there is no pretense that any person connected with the contract aided in procuring the drunkenness.[1] Drunkenness cannot be set up as a defense against a contract in a court of law when not induced by the party seeking to enforce it, unless it was so total as to be palpable evidence of fraud in the person procuring it.[2] Mere moderate drunkenness which does not deprive the mind of rational consent and is not always apparent to others will not of itself avoid a contract,[3] though evidence in an action for services as an attorney that the defendant had been placed in an asylum while suffering from delirium tremens, and was insane from time to time while under the influence of drink, but that the plaintiff did not do business with him during such time, raises a question for the jury whether when the attorney took his instructions the client was insane to his knowledge.[4] And voluntary intoxication which goes only to the extent of rendering the intoxicated person incapable of understanding business clearly is not enough.[5] Nor is occasional incapacity arising from intemperance, where it appears that the party was not intoxicated at the time of the contract and had not been for several days before.[6] And the evidence of a witness who admits that he is not on good terms with the person alleged to have been intoxicated, that he was drunk when the contract was executed and not in a situation to do business aright, is insufficient to establish intoxication which will avoid the contract.[7] So, the drunkenness of the maker of a negotiable note at the time it was made cannot be set up as a

[1] Bates v. Ball, 72 Ill. 108; Loftus v. Maloney, 89 Va. 576; Pickett v. Sutter, 5 Cal. 412.

[2] Burroughs v. Richman, 13 N. J. L. 233, 23 Am. Dec. 717. And see Rottenburgh v. Fowl (N. J. Ch.) 26 Atl. 338.

[3] Mansfield v. Watson, 2 Iowa, 111.

[4] Moss v. Tribe, 3 Fost. & F. 297.

[5] Henry v. Ritenour, 31 Ind. 136.

[6] Lewis v. Baird, 3 McLean, 56.

[7] Mansfield v. Watson, 2 Iowa, 111.

defense against an innocent holder for value,[1] unless his intoxication was so complete as to render the paper truly void.[2] And a note by a person who though drunk was fully aware of what was going on is not void in the absence of fraud.[3] Nor will a note be declared void on the ground of drunkenness whatever its degree where the maker was fully aware of the nature and effect of his act when he received and disposed of the money raised thereon.[4] But an instruction that a man must be so drunk as not to be able to stand or write or understand what he is doing, to avoid his note on the plea of drunkenness, is error, the simple question being, Was he competent to contract?[5] So, one who executed a mortgage when from drunkenness or its effects upon his mind he was deprived of capacity to act with discretion in the ordinary affairs of life is not liable thereon.[6] And a finding that the vendor's mind at the time of an alleged sale was in an abnormal condition produced by drunkenness is sufficiently exact and certain to show that he was then incapable mentally of making a sale or contract.[7] So, a reasonable agreement to settle a family dispute should be enforced though one of the parties was drunk at the time it was made.[8] And intoxication of a party to a contract is no defense in an action thereon where the recovery is sought on the theory of an implied contract as distinguished from an express one.[9] Nor can one who voluntarily pays a debt or claim against him for liquor or other property sold maintain an action for the recovery of the money paid, though he was laboring under the effects of excessive drinking, especially if he was at the time comparatively sober and of sufficient capacity to know what he was doing.[10] And a contract

[1] State Bank v. McCoy, 69 Pa. 204, 8 Am. Rep. 246; McSparran v. Neeley, 91 Pa. 117; Taylor v. Purcell, 60 Ark. 606; Smith v. Williamson, 8 Utah, 219.

[2] Caulkins v. Fry, 35 Conn. 170; Taylor v. Purcell, 60 Ark. 606.

[3] Miller v. Finley, 26 Mich. 249, 12 Am. Rep. 306.

[4] Hawley v. Howell, 60 Iowa, 79.

[5] Cummings v. Henry, 10 Ind. 109.

[6] Reinskopf v. Rogge, 37 Ind. 207.

[7] Franks v. Jones, 39 Kan. 236.

[8] Cory v. Cory, 1 Ves. Sr. 19; Keough v. Foreman, 33 La. Ann. 1434.

[9] Haneklau v. Felchlin, 57 Mo. App. 602. And see Richardson v. Strong, 13 Ired. L. 106, 55 Am. Dec. 430.

[10] Hayes v. Huffstater, 65 Barb. 530.

made by a husband for the exchange of his wife's land without her knowledge or consent will not be set aside for want of mental capacity because of drunkenness on his part where the proof fails to show that he was not rational and fully competent to transact business at the time.[1]

So evidence that about sixteen months after a mortgage was given the mortgagor was adjudged a lunatic, and that at the time of its execution he had a period of intoxication and had committed acts showing want of discretion and propriety, is no defense to a foreclosure thereof where it appears by the testimony of the person who took his acknowledgment that he was sober and apparently intelligent at the time.[2] Drunkenness is a defense to which too ready an ear should not be given.[3]

Whether or not a party was incompetent to contract by reason of drunkenness is a question of fact for the jury,[4] though it is proper for the court to present the rules of law upon the subject leaving the jury to determine whether the evidence brings the case within such rules.[5] Absolute drunkenness does not mean insensibility, and the use of the phrase in an instruction in an action upon contract in which drunkenness is interposed as a defense does not render it impeachable.[6] So, specific performance of an agreement made by a party in a state of intoxication will be refused if no advantage was taken, as a court of equity will not interpose on either side in a common case of intoxication.[7] And a decree for the specific performance of a contract will not be refused on the ground that the party refusing to carry it out was intoxicated at the time, unless it appears that such intoxication was produced by the other party or that an undue advantage had been taken of the situation.[8] But although a court of equity

[1] Schramm v. O'Connor, 98 Ill. 539.

[2] O'Neill v. Nolan, 50 N. Y. S. R. 641.

[3] Berkley v. Cannon, 4 Rich. L. 136.

[4] Reynolds v. Dechaums, 24 Tex. 174, 76 Am. Dec. 101; Cummings v. Henry, 10 Ind. 109.

[5] Cummings v. Henry, 10 Ind. 109.

[6] Cavender v. Waddingham, 5 Mo. App. 457.

[7] Cragg v. Holme, cited in 18 Ves. Jr. 14; Spiers v. Higgons, cited in 1 Madd. 304.

[8] Maxwell v. Pittenger, 3 N. J. L. 156; Reinicker v. Smith, 2 Harr. & J. 421; Shaw v. Thackray, 23 Eng. L. & Eq. 18, 1 Smale & G. 537, 17 Jur. 1045; Lightfoot v. Heron, 3 Younge & C. Exch. 586.

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will not compel the performance of a contract obtained from a person in a state of intoxication,[1] yet where the contract is fairly entered into with a man addicted to drink to sell leasehold premises, and another person with notice of this contract prevails upon the vendor within a few days to assign the same to him for a larger sum, specific performance of the first contract may be decreed,[2] though the habitual intemperance of a party may be a ground for denying a decree of specific performance where it is sufficient to cast suspicion upon the fairness of the transaction.[3]

§ 2. *Intoxication combined with fraud or undue influence.*

Equity will interfere and rescind a contract made by a man who was so drunk as to render him an easy prey to any fraudulent designs of another who takes an unfair advantage of his situation, not on the ground of his drunkenness, but on that of fraud.[4] Acts of a drunkard are avoided on the ground of incompetency in law, and on that of fraud in equity.[5] One who voluntarily incapacitates himself to do ordinary business by intoxication must take the consequences of his own imprudence unless a fraud is committed upon him when in that state.[6] But there may be such a contrivance or management on the part of one party to a contract to draw another into the contract and to take advantage of his intoxication as would justify the interposition of a court of equity on the ground of fraud, though the drunkenness was not so excessive as to deprive him of consciousness of what he was doing.[7] And if any advantage be taken of a man when drunk, or if he be brought into that situation by the contrivance of a person who obtains a contract from him, it is fraudulent, and he

[1] Cooke v. Clayworth, 18 Ves. Jr. 12; Whitesides v. Greenlee, 2 Dev. Eq. 152.

[2] Shaw v. Thackray, 23 Eng. L. & Eq. 18, 1 Smale & G. 537, 17 Jur. 1045.

[3] Seymour v. Delancey, 3 Cow. 445, 15 Am. Dec. 270; Campbell v. Spencer, 2 Binn. 129; Henderson v. Hays, 2 Watts, 148.

Calloway v. Witherspoon, 5 Ired. Eq. 128.

[5] Mansfield v. Watson, 2 Iowa, 111.

[6] Hall v. Moreman, 3 McCord, L. 477; Burroughs v. Richman, 13 N. J. L. 233, 23 Am. Dec. 717; Rottenburgh v. Fowl (N. J. Ch.) 26 Atl. 338; Crane v. Conklin, 1 N. J. Eq. 346, 22 Am. Dec. 519; Campbell v. Ketcham, 1 Bibb, 406; Cooke v. Clayworth, 18 Ves. Jr. 12.

[7] Mansfield v. Watson, 2 Iowa, 111.

will not be permitted to benefit by it,[1] and it will be set aside as fraudulently obtained.[2] And a settlement made by a party whose intoxication was brought about by the contrivance of the other party for the purpose of obtaining an undue advantage will be set aside though he was not so drunk as to be utterly deprived of the use of his reason and understanding.[3] So, evidence in an action upon a note that the maker was intoxicated at the time it was made, and that the plaintiff made him so and imposed upon him in that situation, establishes a good defense.[4] And a partner who induces his copartner to purchase the partnership effects by misrepresenting the true condition of its affairs, obtaining an advantage over him by plying him with intoxicating liquors, will not be allowed to retain the advantage.[5] And the defendant in an action on contract under a plea of *non assumpsit* may prove that he was drunk at the time the promise was made by the procurement of the plaintiff so that he did not know what he did;[6] though it has been held that to entitle a party to introduce proof that an agreement was obtained from an intoxicated person, it must be alleged in the pleading, particularly where it is sought to be proved that the intoxication was induced by the procurement or contrivance of the party obtaining it, and that a mere allegation that the party used many other fraudulent devices to deceive and defraud is too vague and general.[7]

So, a contract may be avoided by the legal representative of a party thereto on the ground of his having been drunk when it was made though the drunkenness was not occasioned by the procurement of the other party.[8] Thus, inducing a person to sign a

[1] White v. Cox, 3 Hayw. (Tenn.) 82; Hotchkiss v. Fortson, 7 Yerg. 67; Crane v. Conklin, 1 N. J. Eq. 346, 22 Am. Dec. 519; Lavette v. Sage, 29 Conn. 577; Nagle v. Baylor, 3 Dru. & W. 60; Cooke v. Clayworth, 18 Ves. Jr. 12.

[2] Hutchinson v. Brown, Clarke, Ch. 408; Calloway v. Witherspoon, 5 Ired. Eq. 128; Cruise v. Christopher, 5 Dana, 181.

[3] Willcox v. Jackson, 51 Iowa, 208.

[4] Curtis v. Hall, 4 N. J. L. 361. But see Noel v. Karper, 53 Pa. 97.

[5] White v. Cox, 3 Hayw. (Tenn.) 82.

[6] Barney v. Dimmitt, 1 Wright (Ohio) 44. Freeman v. Dwiggins, 2 Jones, Eq. 162.

[7] Hutchinson v. Brown, Clarke, Ch. 408.

[8] Wigglesworth v. Steers, 1 Hen. & M. 70, 3 Am. Dec. 602.

paper for a debt which he did not owe, when he was so drunk that he did not know what he was about, is a fraud, though he was not drawn into drink by the party imposing upon him.[1] And evidence showing that a party to a contract was so intoxicated at the time it was made as to be incapable of exercising his understanding, and that the contract was grossly unequal and unreasonable, is sufficient to invalidate it though the intoxication was voluntary.[2] Contracts made by persons who were under the influence of liquor but not completely intoxicated are governed by the principles applying to other cases in which one party is in a position to expose himself to the exercise of improper influences by the other, and will be set aside if the party was drawn into a hard and disadvantageous bargain.[3] And a disadvantageous bargain will be set aside where advantage has been taken of the fact that the mind of the party was enfeebled by habitual intoxication, though he was not intoxicated when it was made.[4] And where evidence is given that a promissory note has been obtained on an insufficient consideration, from a person enfeebled in body and mind by disease and long-continued drunkenness, and who at its execution was under the influence of liquor, a presumption of fraud arises which can only be overcome by evidence of a fair consideration or honest dealing.[5] A note taken from a person of weak intellect who is an habitual drunkard, under suspicious circumstances, is a strong badge of fraud.[6] And the burden of proof rests with one who enters into an advantageous contract with an imbecile or person whose judgment has been enfeebled by habits of intoxication who reposes great confidence in him, for an inadequate consideration, to show that the other contracting party understood what he was doing and intended what he did, and that no advantage was taken.[7] So, the unconscionable character of a division between copartners and cotenants of a large estate may be considered in aid of proof of incompetency on the

[1] King v. Bryant, 2 Hayw. (N. C.) 393.
[2] Barrett v. Buxton, 2 Aik. (Vt.) 167, 16 Am. Dec. 691.
[3] Birdsong v. Birdsong, 2 Head, 289.
[4] Birdsong v. Birdsong, 2 Head, 289.
[5] Holland v. Barnes, 53 Ala. 83, 25 Am. Rep. 595; Hale v. Brown, 11 Ala. 87. And see Crane v. Conklin, 1 N. J. Eq. 346, 22 Am. Dec. 519.
[6] Hale v. Brown, 11 Ala. 87.
[7] Conant v. Jackson, 16 Vt. 335; Miskey's Appeal, 107 Pa. 611.

question of the mental capacity of one of the parties to it.[1] And a verdict in an action of assumpsit will not be disturbed upon the ground that the defendant established a settlement by a clear preponderance of evidence where the evidence presents a fair question for the jury whether the plaintiff was not overreached by the alleged settlement while in such mental condition from the use of ardent spirits as to make him an easy victim.[2] So, a lease obtained from an intoxicated person by fraud is void.[3] And one made immediately after the lessor became of age, at a very inadequate amount, should be set aside as having been obtained by the contrived and habitual intoxication of the lessor, though he knew what he was doing, where it was simply an execution of what he had previously promised to do when in a state of intoxication induced by the lessee.[4] So, where a person in whom a drunken man confides, takes advantage of the confidence and obtains from him an unreasonable contract, it will be set aside upon repayment of any money paid thereon.[5] And a division by a copartner and cotenant, who by long intemperance and a severe sickness had been reduced to a very low state of imbecility, with his copartner, who was his elder brother and who exercised great influence over him, will be set aside as fraudulent and void where it was such that no honest and fair man would think of proposing or be willing to accept.[6] And the rights of a vendor of unsound judgment rendered still weaker by habits of intoxication, who sold to the vendee, who was keen and sagacious, trusting in him, for an inadequate consideration, are not affected by statements afterwards made that the purchase was fair, or by his solemn confirmation of it, unless previous to such statement or confirmation he had been freed from every delusion, impression, or undue influence under which the sale was made, and became aware that it could be set aside.[7] Intoxication to avoid a con-

[1] Doughty v. Doughty, 7 N. J. Eq. 227.
[2] Murray v. Carlin, 67 Ill. 286.
[3] Butler v. Mulinhill, 1 Bligh, 137.
[4] Say v. Barwick, 1 Ves. & B. 195.
[5] M'Cormick v. Malin, 5 Blackf. 509; Morrison v. McLeod, 2 Dev. & B. Eq. 221; Futriel v. Futriel, 5 Jones, Eq. 61; Wiltshire v. Marshall, 14 Week. Rep. 602.
[6] Doughty v. Doughty, 7 N. J. Eq. 227.
[7] M'Cormick v. Malin, 5 Blackf. 509.

tract, however, must have been shown to have been produced by the act or procurement of the other party, or it must appear that an undue advantage was taken of the intoxicated party's situation.[1] And a contract will not be set aside on the ground of intoxication where all of the facts of the case show that the alleged intoxicated party concluded the bargain with great care and deliberation.[2] And a sale of property at a fair price with the assent of the vendor's family and friends, for the purpose of paying debts then pressing, at a time when he was not under the influence of intoxication or alienation of mind, is binding upon him though through intemperance he was subject to temporary derangement.[3] And a conveyance by a man habitually intemperate but not actually drunk at the time, of all his property in trust for his wife and children, which was proper in itself and for the advantage of the party seeking to annul it, will not be set aside on the ground of undue influence, though made under such circumstances as would authorize a court of equity to annul it if it had been made to a stranger.[4]

§ 3. *Discharge of employee for intoxication.*

An employer has the right, independent of any agreement to that effect, to discharge a hired servant who by intoxication unfits himself in any degree for the natural and proper performance of his duties.[5] And the intoxication of a servant rendering him unable to properly perform his duties, or a habit of drinking which unfits him for such performance, is a good cause for his discharge.[6] But a defendant in an action for a wrongful dis charge of a servant, who pleads payment of money into court only, cannot prove in mitigation of damages that he discharged the servant upon the ground of drunkenness.[7] And proof of a

[1] Hutchinson v. Tindall, 3 N. J. Eq. 357; Rodman v. Zilley, 1 N. J. Eq. 320; Campbell v. Ketcham, 1 Bibb, 406; Griffith v. Frederick County Bank, 6 Gill & J. 424; Keough v. Foreman, 33 La. Ann. 1434; Youn v. Lamont, 56 Minn. 216; Loftus v. Maloney, 89 Va. 576.

[2] Seymour v. Delancy, 3 Cow. 445, 15 Am. Dec. 270.

[3] Jones v. Perkins, 5 B. Mon. 222.

[4] Birdsong v. Birdsong, 2 Head, 289.

[5] McCormick v. Demary, 10 Neb. 515.

[6] Gonsolis v. Gearhart, 31 Mo. 585.

[7] Speck v. Philips, 5 Mees. & W. 279.

single act of intemperance committed by a mate of a ship while in port is not conclusive of disability for general maritime employment which will justify his discharge;[1] it must amount to a habit of intemperance to effect a forfeiture.[2] And getting drunk on shore and not returning on board immediately upon the expiration of his leave of absence, upon the part of a sailor whose clothes and other property are on board, is not an act of desertion which will work a forfeiture of his wages.[3] Nor is forfeiture of a steward's wages incurred by occasional intemperance where he performs his duty and is obedient to all lawful commands.[4] And occasional acts of drunkenness not more than usual with sailors, and subsequent acts more frequent but arising from an undue effect given to the liquor used by bodily disease, are not a ground for forfeiture of wages.[5]

III. Alcoholism as affecting conveyances.

A drunkard is not incompetent to execute a conveyance, like an idiot or one generally insane; he is simply incompetent upon proof that at the time of its execution his understanding was clouded or his reason dethroned by actual intoxication.[6] And the mere fact that a man was drunk at the time will not relieve him against any deed or agreement given by him while in that condition.[7] Nor will his habitual drunkenness,[8] or natural weakness of mind increased by habits of intoxication, unless it appears that some advantage was taken or undue influence exerted to procure the conveyance.[9] A court of equity will not assist a person to get rid of an agreement or deed on the mere ground of his intoxication at the time it was made.[10] But while mere intoxication does not exonerate a man from imprudent contracts, if he

[1] Robinett v. Ship Exeter, 2 Rob. Adm. 261.
[2] The Malta, 2 Hagg. Adm. 158.
[3] The Ealing Grove, 2 Hagg. Adm. 15.
[4] The New Phœnix, 1 Hagg. Adm. 198.
[5] The Lady Campbell, 2 Hagg. Adm. 5.
[6] Van Wyck v. Brasher, 81 N. Y. 260; Wright v. Fisher, 65 Mich. 275.
[7] Johnson v. Medlicott, cited in 3 P. Wms. 130.
[8] Woods v. Pindall, 1 Wright (Ohio) 507. And see Freeman v. Staats, 8 N. J. Eq. 814.
[9] Smith v. Elliott, 1 Patton & H. (Va.) 307.
[10] Cooke v. Clayworth, 18 Ves. Jr. 12.

is so drunk when he signs a deed as to be incapable of knowing what he is doing the deed is invalid, as when signed without assent, which is an essential ingredient to the contract;[1] though the party claiming under it had no agency in producing the drunkenness.[2] But the drunkenness of a party which will authorize the setting aside of a deed made while in that condition must have been so excessive as to utterly deprive him of the use of his reason and understanding.[3] And a deed will not be set aside upon the ground of drunkenness where it was simple and voluntarily made without the fraudulent procurement of the grantee when the grantor was sufficiently sober to know what he was doing.[4] And a mortgage title acquired by foreclosure proceedings will not be impeached on the ground of the unsoundness of mind of the grantor caused by habitual intoxication, unless it appears affirmatively that the transaction was fraudulent, or that undue advantage was taken of the intoxication, or that such intoxication was procured by the other party, or that he had notice of it. Nor will the finding in an action to set aside a deed alleged to have been obtained while the grantor was intoxicated be set aside where the testimony as to his intoxication is conflicting.[5] And the opinion of a single witness unsupported by facts, that a grantor was too drunk at the time of making a deed to transact business safely, is not sufficient of itself to avoid the deed.[7]

But one who is reduced to such extreme debility by the use of intoxicating liquors as to be unable to a rise or sit up in bed unless supported, or to hold a pen or to make a mark unless the pen and hand are held for him, is as incompetent to execute a conveyance

[1] Wade v. Colvert, 2 Mill, Const. 27, 12 Am. Dec. 652; Donelson v. Posey, 13 Ala. 752; Dulany v. Green, 4 Harr. (Del.) 285; Shackleton v. Sebree, 86 Ill. 616; Mansfield v. Watson, 2 Iowa, 111; Clifton v. Davis, 1 Pars. Sel. Eq. Cas. 31; Harbison v. Lemon, 3 Blackf. 51, 23 Am. Dec. 376; Pitt v. Smith, 3 Campb. 33.

[2] Donelson v. Posey, 13 Ala. 752.

[3] Belcher v. Belcher, 10 Yerg. 121.

[4] Morris v. Nixon, 7 Humph. 579; Dulany v. Green, 4 Harr. (Del.) 285.

[5] Youn v. Lamont, 56 Minn. 216.

[6] Johnson v. Phifer, 6 Neb. 401.

[7] Harbison v. Lemon, 3 Blackf. 51, 23 Am. Dec. 376.

of his property as he would be if actually intoxicated.[1] And a deed made by a person in a state of intoxication will be set aside if advantage has been taken of his situation or if his drunkenness was procured by the act or connivance of the person to be benefited thereby.[2] So, intoxication procured by a grantee in a deed for the purpose of causing its execution invalidates it,[3] unless it was executed when the grantor was sober.[4] And a deed without consideration from one whose mind had been greatly impaired by excessive and long-continued intemperance, to another from whom he had been in the habit of buying liquor and who knew of his excessive use of it, will be set aside in equity.[5] And a deed made during a period spent by the grantor in the house of the grantee will be set aside where he was drunk when he went there, and had delirium tremens and was so weak as to be unable to walk without assistance when he was taken away, and his friends did not know where he was, the grantee alone having access, the grantor testifying that the time spent there was a painful blank.[6] So, equity will relieve against a conveyance of his property made by an intoxicated person without consideration though the intoxication was not induced by the act or procurement of the grantee.[7] And where the sense of a grantor was blunted at the time of making a deed, and his mind enfeebled by age and disease, and he was absentminded, listless, and inattentive, and his memory uncertain, fitful, and capricious, and he was somewhat under the influence of intoxicating liquor, his deed will be set aside if his attention was not called to circumstances and details which would naturally operate in deciding upon the

[1] Wilson v. Bigger, 7 Watts & S. 111.

[2] O'Conner v. Rempt, 29 N. J. Eq. 156.

[3] Woods v. Pindall, 1 Wright (Ohio) 507; Johnson v. Medlicott, cited in 3 P. Wms. 130; Cooke v. Clayworth, 18 Ves. Jr. 12; Dun v. Amo, 14 Wis. 107; Wager v. Reid, 3 Thomp. & C. 332. And see Samuel v. Marshall, 3 Leigh, 567.

[4] Woods v. Pindall, 1 Wright (Ohio) 507.

[5] Ryerson v. Adams, 6 N. J. Eq. 618; Samuel v. Marshall, 3 Leigh, 567; Seeley v. Price, 14 Mich. 541.

[6] O'Conner v. Rempt, 29 N. J. Eq. 156.

[7] Warnock v. Campbell, 25 N. J. Eq. 485; Hutchinson v. Tindall, 3 N. J. Eq. 357; Mead v. Coombs, 26 N. J. Eq. 173. And see Crane v. Conklin, 1 N. J. Eq. 346, 22 Am. Dec. 519; Neilson v. Lafflin, 50 N. Y. S. R. 277.

propriety of the transaction through the agency of the witnesses, though he was not an insane person or an idiot or of that degree of mental imbecility which would itself render him incapable of executing a valid deed, and though he was at the time capable of understanding the nature of the transaction.[1]

So a deed made by a person of weak intellect and habitual drunkenness upon the day of his marriage, to a brother in consideration of love and affection, without any reservation for himself and family, and a bill of sale after marriage to such brother for a nominal sum which was never paid or intended to be paid, of far less value than the property, will be held in equity to raise a trust for the benefit of the wife and other representatives, though there was no positive proof of fraud, and though he sometimes said he was satisfied with the transaction, where the intoxication was in some measure produced by the grantee.[2] And a sale of mortgaged premises will be perpetually enjoined when the person executing the mortgage was rendered imbecile by habitual drunkenness, and reduced to a condition verging on insanity at the time, and the mortgagee had obtained complete control over him and failed to show any valuable consideration therefor.[3] So, a purchase of property from a bailee thereof when drunk, whether made so for the purpose or not, is void, and gives no right to possession, and the taking thereof under color of such conveyance may be regarded as tortious and a ground for replevin.[4] But a deed cannot be avoided on the ground of the mental incapacity of the grantor produced by intemperance, unless it appears that at the time of its execution he was incompetent to perform the act;[5] or because the grantor from habitual dissipation or otherwise was in such a condition of mind immediately before or immediately after its date as to render him incompetent to transact business, where it appears that he was sober when it was executed and of sufficient capacity to dispose of his property with an intelligent understanding of what he was doing.[6] And a deed made without

[1] Seeley v. Price, 14 Mich. 541.
[2] Rutherford v. Ruff, 4 Desauss. Eq. 350.
[3] Van Horn v. Keenan, 28 Ill. 445.
[4] Drummond v. Hopper, 4 Harr. (Del.) 327.
[5] Johnson v. Rockwell, 12 Ind. 76.
[6] Ralston v. Turpin, 129 U. S. 663, 32 L. ed. 747, 25 Fed. Rep. 7.

consideration by a person addicted to drink to the mother of a child to whom he had become attached, and in whose name he had stated he intended to purchase property, will not be set aside when it does not appear that he was intoxicated at the time, where there was no evidence to show that any artifice or persuasion was used or suggestions made, and he had been engaged in various business transactions and directed the scrivener how to draw it.[1] Nor will a deed of trust executed by a grantor for the benefit of his wife and children, made while he was intoxicated, be set aside in equity upon the ground that undue advantage had been taken of his situation.[2]

IV. Alcoholism as affecting wills.

One addicted to intemperance and subject to fits of derangement may make a valid will if he be *compos mentis* at the time.[3] Habits of drunkenness do not affect a man's capacity to make a will where he was not intoxicated when he made it, though his habits were the cause of the disease of which he died;[4] or though he hurt himself to a great extent by his indulgence, and displayed the usual acts of folly when drunk, where they were not carried to the extent of intoxication either generally or at the time of making the will.[5] Occasional fits of intemperance are not evidence of want of testamentary capacity.[6] And evidence of an habitual use of liquor to excess is not alone sufficient to establish testamentary incapacity.[7] Nor is evidence of frequent sleepiness, flightiness, and violent outbreaks of passion resulting from excessive use of intoxicating drinks;[8] or the fact that while under the excitement of liquor the testator acted in all respects like a mad man.[9] Nor is a will rendered invalid by the mere fact

[1] Rottenburgh v. Fowl (N. J. Ch.) 26 Atl. 338.

[2] Hutchinson v. Tindall, 3 N. J. Eq. 357.

[3] Hebert v. Winn, 24 La. Ann. 385; Koegel v. Egner, 54 N. J. Eq. 623.

[4] Kahl v. Schober, 35 N. J. Eq. 461.

[5] Re Tracy, 11 N. Y. S. R. 103; Hubbard's Will, 6 J. J. Marsh. 59; O'Neil v. Murray, 4 Bradf. 311.

[6] Violet's Will, 1 Bibb, 617; Re Watson, 34 N. Y. S. R. 906.

[7] Weisman's Estate, 45 Phila. Leg. Int. 274.

[8] McCullough's Will, 35 Pittsb. L. J. 169.

[9] Ayrey v. Hill, 2 Add. Eccl. Rep. 206; Temple v. Temple, 1 Hen & M. 476; Hight v. Wilson, 1 U. S. 1 Dall. 94, 1 L. ed. 51.

that the testator was under the influence of liquor when it was made.[1] A drunkard may make a valid will though under the influence of liquor at the time, if he comprehends the nature, extent, and disposition of his estate, his relations to those who have or might have a claim upon his bounty, and is free from undue influence, fraud, or coercion.[2] His intoxication will not avoid his will if it was not sufficient to prevent him from knowing what he was about.[3] To have that effect his mind must have been in such a condition that he had no intelligent comprehension of the nature of the transaction.[4] And habits of intemperance will not invalidate a will where the testator's mind was not so affected thereby as to render him incapable of comprehending the condition of his property and his relations to the objects of his bounty, and the scope and bearing of the provisions of his will and the relations of each of these factors to the others,[5] though to some extent his indulgence had impaired his mental and physical powers and contributed to the degradation of his moral character.[6] Thus, evidence of habits of intemperance and occasional fits of wildness, though indicating an impaired mind, is not sufficient to establish a total and permanent absence of testamentary capacity.[7] And evidence that a testator originally possessed a strong will which might have been weakened somewhat by disease and dissipation, and that he was frequently drunk and generally ill natured and stubborn, is insufficient to warrant the submission of the issue of testamentary capacity to the jury.[8] Nor is such submission justified by evidence that the testator was very nervous, weak, and suffering from physical prostration due

[1] Key v. Holloway, 7 Baxt. 576.

[2] Re Reed, 2 Connoly, 403.

[3] Pierce v. Pierce, 38 Mich. 412; Rich v. Cary, 27 N. Y. 9; Gardner v. Gardner, 22 Wend, 526, 34 Am. Dec. 340; Starrett v. Douglass, 2 Yeates, 48; Andress v. Weller, 3 N. J. Eq. 604; Turner v. Cheesman, 15 N. J. Eq. 243; Hebert v. Winn, 24 La. Ann. 385.

[4] Key v. Holloway, 7 Baxt. 576.

[5] Bannister v. Jackson, 45 N. J. Eq. 702; Whitenack v. Stryker, 2 N. J. Eq. 8; McLaughlin's Will, 2 Redf. 504; Philadelphia Trust & S. D. Co. v. Drinkhouse, 17 Phila. 23. And see Thompson v. Kyner, 65 Pa. 368; Wheeler v. Alderson, 3 Hagg. Eccl. Rep. 574.

[6] Bannister v. Jackson, 45 N. J. Eq. 702.

[7] Julke v. Adam, 1 Redf. 454.

[8] McPherson's Appeal (Pa.) 11 Atl. 205.

to over stimulation, where there was nothing to show an inability to comprehend the nature and character of the testamentary power or of its exercise, and it appears that shortly afterwards he stated that he had changed his will, accurately designating the change.[1]

So, evidence of long-continued habits of intemperance, and of irrational conduct on the part of a testator, and that he had been paralyzed on one side for some time and had lost the power of intelligent speech, does not show testamentary incapacity as against testimony of neighbors who had known him for many years, that he was of sound mind, where it appears that the testimony as to his incapacity was biased and in some respects false, and that a part of his property was bequeathed pursuant to a previous agreement.[2] Nor is testamentary incapacity shown by the fact that the testator was an intemperate man and had Bright's disease of the kidneys, where his signature shows no evidence of unsteadiness and his will was natural;[3] or by the fact that owing to intemperance he acted at times with whimsical and ridiculous levity, where he acted with a firm, collected, and efficient mind in the framing and execution of his will.[4] And evidence that a testator was of intemperate habits and accustomed to fits of great intoxication, becoming insensible, and that his death was probably due to exposure while intoxicated and to the effects of intoxication, together with that of experts that he was insane, will not invalidate his will where it appears that he would remain sober for a considerable length of time and was considered a man of good mind when sober, the opinions of the experts having been given without personal examination.[5]

An habitual drunkard is presumed to be competent when sober.[6] And a will totally excluding the testator's next of kin, with whom he had quarreled, in his own handwriting, executed at the office of his attorney, who was one of the executors and a residu-

[1] Harmony Lodge I. O. O. F.'s Appeal, 127 Pa. 269.
[2] Re Tacke, 17 N. Y. S. R. 805.
[3] Re Schreiber, 22 N. Y. S. R. 892.
[4] Violet's Will, 1 Bibb, 617.
[5] M'Intire v. M'Conn, 28 Iowa, 483.
[6] Gardner v. Gardner, 22 Wend. 526, 34 Am. Dec. 340. And see Koegel v. Egner, 54 N. J. Eq. 623.

ary legatee to a large amount, his family also having large legacies, cannot be held invalid on the ground of insanity though the attesting witnesses spoke as to execution only, where, though guilty of excessive intemperance and great extravagance, he managed his own property, received dividends, did various acts of business, corresponded rationally with friends, and was not shown to be under any delusion, and documents in his own handwriting show capacity and knowledge of the contents of the will.[1]

So, the dispositions of a will may be examined in a contest thereof in which it is claimed that the testator was intoxicated when making it, to determine, not whether they are in some degree extravagant or unreasonable, but whether they depart so widely from what would be considered natural as to be fairly referable to no other cause than a disordered intellect.[2] And evidence of impairment of mind by the use of ardent spirits, and that in consequence the testator was frequently incapable of transacting business, is not sufficient to repel the presumption of sanity arising from the fact that he wrote the will himself, without proof that he was incapable of transacting business at the very time the will was executed.[3] And a will made at the testator's request, which was his voluntary act, free from force, fraud, or imposition, is valid though he had been addicted to drink and had had delirium tremens a few days before.[4]

One who transacts his own business, and keeps his own accounts, and makes his own returns for the assessment of taxes, is not insane so as to be incapable of making a will, though he was a drunken man and played drunken pranks.[5] Evidence that a testator was so excited by liquor or so conducted himself at the time as to be at that moment legally disqualified is necessary to avoid his will, where no fixed or settled delusion is shown, and extravagant acts are accounted for by the excitement of liquor. But weakness of intellect from intemperance, to the extent of

[1] Wheeler v. Alderson, 3 Hagg. Eccl. Rep. 574.
[2] Peck v. Cary, 27 N. Y. 9, 84 Am. Dec. 220.
[3] Temple v. Temple, 1 Hen. & M. 476.
[5] Handley v. Stacey, 1 Fost. & F. 574.
[4] Billinghurst v. Vicars, 1 Phillm. Eccl. Rep. 193. And see Fluck v. Rea, 51 N. J. Eq. 233.
Wheeler v. Alderson, 3 Hagg. Eccl. Rep. 574.

disqualifying a testator from knowing and comprehending the nature, effect, and consequences of his act, deprives him of testamentary capacity.[1] And that he had had delirium tremens is evidence of incapacity,[2] though it will not affect the validity of the will, where it had passed away leaving the testator sane and sensible.[3] And a will unequal in its provisions will be denied probate where at the time it was made, and subsequently until the time of his death, the testator had been subject to attacks of delirium tremens, and at the time of making it entertained delusions likely to affect his testamentary provisions.[4]

There is no standard of drunkenness, however, which will defeat testamentary capacity, short of downright imbecility.[5] And in order to avoid a will made by an intemperate person it must be proved that he was so excited by liquor, or so conducted himself during the particular act, as to be at that moment legally disqualified.[6] Intoxication is a temporary condition, and testimony as to intoxication must be confined to the time involved in the transaction; and if the testator was not overcome by drunkenness when he made his will, it is not important that he was so on other occasions.[7] And the will of one whose habits of intoxication had not produced mental derangement sufficient to destroy testamentary capacity is valid, if at the very moment of its execution he was not intoxicated to such a degree as to disorder his faculties or pervert his judgment.[8] And the burden of showing such incapacity rests with the party seeking to invalidate the will.[9] Thus, evidence that a testator was a drunkard does not warrant the submission of the issue of testamentary capacity to

[1] Leech v. Leech, 5 Clark (Pa.) 86. And see Duffield v. Robeson, 2 Harr. (Del.) 275; Gardner v. Gardner, 22 Wend. 526, 34 Am. Dec. 340; Julke v. Adam, 1 Redf. 454; Barrett v. Buxton, 2 Aik. (Vt.) 167, 16 Am. Dec. 691; Temple v. Temple, 1 Hen. & M. 476.

[2] Edge v. Edge, 38 N. J. Eq. 211.

[3] Handley v. Stacey, 1 Fost. & F. 574.

[4] Waters v. Cullen, 2 Bradf. 354; Edge v. Edge, 38 N. J. Eq. 211.

[5] Dimond's Estate, 3 Pa. Dist. R. 554.

[6] Peck v. Cary, 27 N. Y. 9, 84 Am. Dec. 220; Re Tracy, 11 N. Y. S. R. 103; Gardner v. Gardner, 22 Wend. 526, 34 Am. Dec. 340.

[7] Pierce v. Pierce, 38 Mich. 412.

[8] Bannister v. Jackson, 45 N. J. Eq. 702.

Andress v. Weller, 3 N. J. Eq. 604; Re Lee, 46 N. J. Eq. 193.

the jury in the absence of anything to show that he was not entirely sober when the will was made.[1] And the fact that the testator was more or less under the influence of liquor at an early hour in the morning of the day the will was executed is not sufficient to invalidate it.[2] Nor is proof of a long-continued habit of drinking to excess, and that such habit tends to impair the intellect and moral senses.[3] And a will will be upheld though made by a person recovering from an attack of mania a potu, who on the following day committed suicide, where there is evidence to the effect that his mind was clear at the time;[4] or where executed after a protracted debauch, the testator having drank several times in the course of the day, it appearing that at the time his excitement was not such as to disorder his faculties and pervert his judgment.[5] Where there is evidence in a will contest, tending to show that, at or near the time the will was made, the testator was so drunk that he could not stand up, understand anything, or talk, it should be left to the jury to say whether at the time he signed the will he was so drunk that he had not sufficient reason to know his property and dispose of it in a rational manner, according to a fixed purpose of his own.[6] And evidence of the reasonableness of a will, and testimony consistent with the existence of capacity to execute it, are sufficient to support a finding of testamentary capacity, though the testator was a man of intemperate habits and suffering from the effects of a debauch when he made it, and though a physician acquainted with his habits gave his opinion that he was incapable of understanding what he was doing.[7]

Bare proof of execution, however, is not sufficient to authorize the probate of a will of an aged person of a low grade of intellect, who had become addicted to the excessive use of intoxicating liquors, and who was perfectly mad while under their influence. There must also be proof of instructions or knowledge of con-

[1] Levis' Estate, 140 Pa. 179.
[2] Dimond's Estate, 3 Pa. Dist. R. 554.
[3] Re Tracy, 11 N. Y. S. R. 103.
[4] McElwee v. Ferguson, 43 Md. 479.
[5] Peck v. Cary, 27 N. Y. 9, 84 Am. Dec. 220.
[6] Best v. Best, 11 Ky. L. Rep. 215.
[7] Re Peck, 42 N. Y. S. R. 898.

tents.[1] And where the testator was a person whose mental faculties had become seriously impaired by the use of strong drink, and he had nothing to do with the preparation of his will, evidence that he read it, or heard it read, or its contents stated, or that he knew what was in it, is imperatively demanded before it can be admitted to probate.[2] So, a will prepared by an attorney who takes a large estate thereunder, the legatees taking the whole to the exclusion of the testator's own family, he being a person of slender capacity, addicted to drink, singular in appearance, and frivolous and childish in his amusements and occupations,—calls upon the court to study the effect of the will itself with care, diligence, and suspicion.[3] And that a testator about seventy years of age had been an habitual drunkard for years, his appetite for drink being uncontrollable, and that he went to live with a brother who was a saloon keeper and who offered him a home, with full and free opportunity to drink when and what he pleased, and who resisted the efforts of his guardian to take him away, and that he had been drinking to some extent on the day he made his will, which made such brother his sole legatee,—warrants a finding of undue influence invalidating it.[4] But where a will is read to a testator correctly, and he is of sound mind, the legal presumption would be that he understood its contents, though it is only prima facie, where he is of great age and addicted to the use of ardent spirits to such an extent as to enfeeble and impair his faculties.[5] And keeping a will uncanceled gives rise to a presumption that it was not procured against the testator's will and intelligent consent, whether fraud, undue influence, or intoxication is set up against it.[6] Nor will a will prepared for a testator of slender capacity and addicted to drink, by a solicitor, under which the latter takes at least one fourth of the estate, the other legatees taking the rest to the exclusion of the testator's son, be refused probate where it appears that there

[1] Durling v. Loveland, 2 Curt. Eccl. Rep. 225; McSorley v. McSorley, 2 Bradf. 188.

[2] Burritt v. Silliman, 16 Barb. 198.

[3] Barry v. Butlin, 2 Moore, P. C. C. 482.

[4] Slinger's Will, 72 Wis. 22.

[5] Rutland v. Gleaves, 1 Swan, 198.

[6] Pierce v. Pierce, 38 Mich. 412.

was a complete alienation between the testator and his son, and that they had ceased to speak with each other, and that the solicitor meant that the will should be fairly and openly executed.[1]

V. Alcoholism as affecting gifts.

Drunkenness of a donor produced by the donee, or so extreme that he did not know what he was about, is a material circumstance to be considered in deciding as to the validity of a gift.[2] Thus, a deed of gift of slaves, made by a person so intoxicated as to be deprived of the exercise of his understanding, is voidable at his election, or that of one claiming under him, though if he acknowledges the deed after regaining his reason it is a ratification thereof.[3] And a voluntary and irrevocable deed or gift by a person in a mental state of imbecility caused by habitual intoxication, of his whole estate to a cousin, disinheriting his sisters, and reserving a life estate to himself, without any reasonable motive, is sufficient to warrant an inference of fraud which will invalidate it.[4] So, equity will relieve against a conveyance of his property by an intoxicated person without consideration, though the intoxication was not induced by the act or procurement of the grantee.[5] And such a deed from one whose mind had been greatly impaired by excessive and long-continued intemperance, to another from whom he had been in the habit of buying liquor, and who knew of his excessive use of it, will be set aside.[6] And a deed in consideration of love and affection, by a person of weak intellect and habitual drunkenness, upon the day of his marriage, to his brother, without reservation for himself or family, and a bill of sale after marriage, to such brother, will be held in equity to raise a trust for the benefit of the wife and other representatives of the donor, though there was no positive proof of fraud, and though he sometimes said he was satisfied with the transaction, where the grantee in some measure contributed to the intoxication.[7] So, a

[1] Barry v. Butlin, 2 Moore, P. C. C. 482.
[2] Samuel v. Marshall, 3 Leigh, 567.
[3] Blagg v. Hunter, 15 Ark. 246.
[4] Samuel v. Marshall, 3 Leigh, 567.
[5] Warnock v. Campbell, 25 N. J. Eq. 485.
[6] Ryerson v. Adams, 6 N. J. Eq. 618.
[7] Rutherford v. Ruff, 4 Desauss. Eq. 350.

conveyance without consideration will be relieved against in equity, where the grantor was so intoxicated as not to know what he was doing, though the intoxication was not induced or procured by the donee.[1] A voluntary deed from a father to his son, however, will not be set aside where no undue or improper means were used, merely because the father regarded him with more favor than another child, and because the deeds were executed when the father was in some degree intoxicated, where he was not insensible of what he was doing.[2] And a deed of trust for the benefit of the grantor's wife and children, made while intoxicated, will not be set aside in equity upon the ground that undue advantage had been taken of his situation.[3] Nor will a deed in the nature of a testamentary disposition, made by a person seventy-six years of age, on the eve of his second marriage, when his memory was somewhat impaired, be set aside on the ground of mental impairment from advanced age and the use of intoxicating liquors, where he still possessed a sound, practical judgment in business matters, and exhibited judgment in making the disposition of his property, which was not inequitable or unjust.[4] An habitual drunkard is presumed to be competent to make a valid gift, unless it appears that his intemperance has produced a settled derangement of his faculties.[5]

VI. Alcoholism as affecting marriage.

A marriage by one who at the time was so much intoxicated as to be *non compos mentis*, and who did not know what he was doing, and was for the time deprived of reason, is invalid; but it is valid if the intoxication was of a less degree.[6] It must have been such as to deprive the party of all sense of volition, and to render him incapable of knowing what he was about.[7] Thus, a marriage is invalid and will be set aside where it is proved that

[1] Hutchinson v. Tindall, 3 N. J. Eq. 357.
[2] Belcher v. Belcher, 10 Yerg. 121.
[3] Hutchinson v. Tindall, 3 N. J. Eq. 357.
[4] Wiley v. Ewalt, 66 Ill. 26.
[5] Gardner v. Gardner, 22 Wend. 526, 34 Am. Dec. 340.
[6] Prine v. Prine, 36 Fla. 676, 34 L. R. A. 87; Legeyt v. O'Brien, Milw. Eccl. Rep. 325.
[7] Roblin v. Roblin, 28 Grant, Ch. (U. C.) 439. And see Selah v. Selah, 23 N. J. Eq. 185.

the woman married was in such a state of stupefaction occasioned by intoxication, at the time, as to be incapable of giving rational consent or of understanding what she was doing.[1] And insanity from delirium tremens is sufficient to avoid a marriage; and the question whether the party was really insane or only intoxicated is one of fact for the jury.[2] But a marriage is valid, though the husband was suffering from delirium tremens at the time, when it took place during a lucid interval, and he was able to discuss and arrange the terms of the marriage settlement.[3] And the drunkenness of a party to a marriage, if induced by interested parties by discreditable arts, and though of such a degree as to render him unable to comprehend and understand the nature and obligation of the engagement and relation he was entering into, is not insanity within the meaning of a statutory provision authorizing the annulment of a marriage where either of the parties was at the time insane.[4] Nor is a marriage invalidated by the fact that the husband had been found an habitual drunkard by inquisition and a committee of his estate appointed, though a contract for the payment of money in consideration of the marriage would be thereby invalidated.[5] And an adjudication of the probate court, that a person was incapable of taking care of himself or his property by reason of intemperance, appointing a guardian of his person and estate, is prima facie only, and not conclusive, evidence of his want of capacity to contract marriage.[6] One who relies upon insanity of a temporary nature like intoxication, which comes and goes with the existing cause, to invalidate a marriage, must show its existence and operation at the very time the ceremony is performed.[7] A marriage entered into while the man was so intoxicated as to be incapable of understanding what he was about, however, is voidable only, and not void, and may be ratified and confirmed; and a memorandum introduced on the record by him, in an action brought for necessaries fur-

[1] Johnston v. Brown, 2 Shaw & D. Sc. Sess. Cas. 437.
[2] Clement v. Mattison, 3 Rich. L. 93.
[3] Scott v. Paquitt, 17 Lower Can. Rep. 283.
[4] Elzey v. Elzey, 1 Houst. (Del.) 308.
[5] Imhoff v. Witmer, 31 Pa. 243.
[6] McCleary v. Barcalow, 6 Ohio C. C. 481.
[7] Legeyt v. O'Brien, Milw. Eccl. Rep. 325.

nished to a woman alleged to be his wife, for expenses incurred in the burial of her child, in which the validity of the marriage was put in issue and in which he admitted its existence and validity and consented to a verdict for the plaintiff,—is a sufficient ratification and confirmation thereof.[1]

VII. Alcoholism as affecting divorce.

§ 1. *Drunkenness as a ground for.*

Drunkenness independent of other causes is not ground for divorce, in the absence of statutory enactments making it so.[2] And drunkenness is not insanity for which a divorce can be granted under the provisions of a statute authorizing the annulment of a marriage where either of the parties was at the time insane, though accompanied by circumstances of fraud on the part of the friends of the wife;[3] though it has been held that a decree of divorce will not be disturbed on appeal where the evidence established habitual intemperance on the part of the husband.[4] Many, if not a majority, of the states, however, have statutory provisions for divorce for habitual or continued drunkenness, some of them requiring that the habits of intoxication must have been contracted after marriage;[5] and some of them that they must have been gross and confirmed;[6] and some that they must have been continued for a designated length of time.[7] Under such statutes the condition of confirmed drunkenness must continue until the libel for divorce is filed.[8] And though proof of a confirmed habit of drunkenness prior to the period defined in a statute authorizing divorce for general drunkenness for the space of one year immediately preceding the filing of

[1] Roblin v. Roblin, 28 Crant, Ch. (U. C.) 439.

[2] Shutt v. Shutt, 71 Md. 193; Mason v. Mason, 131 Pa. 161; Bean v. Bean, 11 Lanc. Bar. 138; McVickar v. McVickar, 46 N. J. Eq. 490.

[3] Elzey v. Elzey, 1 Houst. (Del.) 308.

[4] Johnson v. Johnson, 35 Phila. Leg. Int. 70.

[5] Blaney v. Blaney, 126 Mass. 205; Lyster v. Lyster, 111 Mass. 327; Porritt v. Porritt, 16 Mich. 140.

[6] Lyster v. Lyster, 111 Mass. 327; Gourlay v. Gourlay, 16 R. I. 705.

[7] Dunn v. Dunn, 62 Cal. 176; Rose v. Rose, 9 Ark. 507; Brown v. Brown, 38 Ark. 324; Batchelder v. Batchelder, 14 N. H. 380.

[8] Burt v. Burt, 168 Mass. 204.

the complaint is admissible as evidence bearing upon the issue, the statute cannot be construed to allow a divorce for habitual drunkenness during any period prior to such time immediately preceding the filing; and a divorce will not be granted in the absence of evidence of intoxication during such period.[1] And the intoxication which will authorize a divorce consists of a condition arising from the use of such stimulants as wine, brandy, whisky, etc.; and the habitual use of opiates, though operating substantially like intoxicating liquors, and though rendering the party careless, reckless, untruthful, and stupid, and undermining and destroying all the objects of the marriage relation, does not constitute drunkenness which will authorize a divorce;[2] though under the Massachusetts statute the use of opium is expressly included.[3] And the drunkenness must be habitual, consisting of the constant indulgence in the use of intoxicating liquor,—not the ordinary use, but an habitual use; and the habit should be actual and confirmed, though it need not be continuous or of daily occurrence.[4] It must appear that the party drinks to excess so frequently as to constitute a fixed practice or habit.[5] Habitual intemperance within the divorce law can only refer to the persistent habit of becoming intoxicated, rendering the presence of the party in the marriage relation disgusting and unendurable.[6] And frequent and regular recurrence of excessive indulgence in intoxication constitutes habitual drunkenness amounting to a ground for divorce,[7] frequent recurrence of drunkenness proving the habit.[8] One is an habitual drunkard within the meaning of the divorce law who indulges in the practice of becoming intoxicated whenever the temptation is presented and the opportunity offered, and who cannot resist the temptation to drink to excess whenever he has

[1] Reynolds v. Reynolds, 44 Minn. 132.

[2] Dawson v. Dawson, 23 Mo. App. 169; Barber v. Barber (Conn.) 14 Law Rep. 375; Youngs v. Youngs, 130 Ill. 230, 6 L. R. A. 548; Holland v. Holland, 4 Legal Gaz. 372.

[3] Burt v. Burt, 168 Mass. 204.

[4] Mack v. Handy, 39 La. Ann. 491; Williams v. Goss, 43 La. Ann. 868.

[5] Walton v. Walton, 34 Kan. 195.

[6] Burns v. Burns, 13 Fla. 369.

[7] Golding v. Golding, 6 Mo. App. 602; McGill v. McGill, 19 Fla. 341.

[8] McGill v. McGill, 19 Fla. 341.

an opportunity,[1] and who makes no vigorous effort to resist or overcome the habit, or whose will has become so enfeebled that restraint is impossible.[2] And one who for a period of two years was frequently and customarily or habitually given to the excessive use of intoxicating drink, and had lost the power of will to control his appetite, was an habitual drunkard, though he was not disqualified from attending to his business during the particular portion of the day usually devoted thereto.[3] To constitute one an habitual drunkard within the meaning of the divorce law, he need not be constantly under the influence of intoxicating liquors; and he may be one if there are intervals when he entirely refrains from their use.[4] One may be an habitual drunkard within that law where he has a fixed habit of frequently getting drunk, though he may not be more often drunk than sober, and though sober for weeks at a time.[5] And a fixed habit of drinking to excess to such a degree as to disqualify the person from attending to his business during the principal portion of the time usually devoted to business is habitual intemperance, though during intervals he may have been in a position to attend to his business affairs.[6]

So, repeated drunkenness, followed by occasional spells of sobriety and moderate drinking, when the habit is so fixed that the temptation to drink cannot be resisted, constitute habitual drunkenness; and where such excesses on the part of a husband are of such a character as to render living with him insupportable, his wife is entitled to a decree of separation.[7] And a divorce in favor of a wife on the ground of cruel treatment and habitual intemperance is sustained by evidence that the husband often came home very drunk, and that he frequently staid away until midnight, and sometimes all night, and that he got his bottle filled nearly every morning, and that he had once been in a condition closely resembling delirium tremens, and that on some

[1] Walton v. Walton, 34 Kan. 195; Magahay v. Magahay, 35 Mich. 210.
[2] Magahay v. Magahay, 35 Mich. 210.
[3] Richards v. Richards, 19 Ill. App. 465.
[4] Walton v. Walton, 34 Kan. 195.
[5] Brown v. Brown, 38 Ark. 324.
[6] Mahone v. Mahone, 19 Cal. 627, 81 Am. Dec. 91.
[7] De Lesdernier v. De Lesdernier, 45 La. Ann. 1364.

occasions his wife had to undress him and put him to bed, though he was not proved to have been wholly incapacitated for business.[1]

The reason the law makes habitual drunkenness a ground for divorce, however, is not alone because it disqualifies the party from attending to business, but in part, if not mainly, because it renders him unfit for the duties of the marital relation, and disqualifies him for properly rearing and caring for the children born of the marriage.[2] And a husband who has a persistent habit of becoming intoxicated at home and while with his family is habitually intemperate within the meaning of the divorce law, though when abroad in the community transacting business he is not habitually intemperate.[3] And evidence that a husband had become grossly intoxicated three or four times a year for a period of twelve or fifteen years, remaining in that condition from a week to ten days, and that he could not resist the desire to drink when it came upon him, and that any undue excitement made him drink, is sufficient to justify a finding of such confirmed habits of intoxication as entitle his wife to a divorce.[4] So, a divorce will be granted against a husband where it appears that for six or seven years he had been in the habit of getting intoxicated whenever he went where liquor could be obtained, averaging once or twice a week, and that he would get very drunk, and was morose and ugly, and sometimes brutal and profane and violent, both with his family and his stock, though he was a good husband and father and a prosperous farmer when sober.[5] But while occasional drunkenness, especially in a woman, may form a part of the indignities to the other party which would render his condition intolerable and warrant a divorce on that ground, one act of drunkenness, though accompanied by acts of indignity, probably resulting from drunkenness, would not make it a case for divorce on the ground of habitual drunkenness for two years.[6]

So, occasional intoxication in a woman is not habitual drunk-

[1] Williams v. Goss, 43 La. Ann. 868.
[2] Richards v. Richards, 19 Ill. App. 465.
[3] McGill v. McGill, 19 Fla. 341.
[4] Blaney v. Blaney, 126 Mass. 205.
[5] Berryman v. Berryman, 59 Mich. 605.
[6] Kempf v. Kempf, 34 Mo. 211.

enness which will justify a divorce, any more than it is in a man.[1] A man may drink occasionally to excess, however, and yet not be an habitual drunkard within the divorce law.[2] There must be an involuntary tendency to become intoxicated as often as the temptation is presented, which comes from a fixed habit acquired from frequent and excessive indulgence; and a man living in the country, who only drank when he happened to come to town, which was generally on business, and then not always to excess, and who seldom carried liquor home, and became grossly drunk on only a few occasions, and was sober in his family except on such occasions,—is not addicted to habitual drunkenness so as to authorize a divorce.[3] And evidence that on a few occasions a wife had been so much under the influence of liquor as to render it noticeable will not justify a divorce, where such evidence is given mostly by the husband and his relatives, while her neighbors testify that they have never seen her drunk, and did not know she drank, and it appeared that she managed her household affairs, and that her husband had such confidence in her prudence and economy that he handed to her each week a stated allowance for housekeeping expenses, increasing it as he prospered in business, leaving the expenditure entirely to her judgment.[4] Nor is habitual intemperance justifying a divorce established by the fact that the husband became intoxicated about once in three weeks, during the evening, to such an extent that he would not go to work the next morning, and had continued to do so for about two years, where it had not caused loss of his position or want or suffering in his family.[5] So, while a wife is entitled to a divorce for habitual drunkenness where the husband remains an habitual drunkard for the statutory period, though he then ceases to be one, if she voluntarily continues the marital relation after he so ceases she thereby condones the offense and nullifies her right to a divorce; but where he continues to be an habitual drunkard the offense is continued, and she may break off at any time and

[1] Meathe v. Meathe, 83 Mich. 150.

[2] Walton v. Walton, 34 Kan. 195; McBee v. McBee, 22 Or. 329; Myrick v. Myrick, 67 Ga. 771.

[3] McBee v. McBee, 22 Or. 329.

[4] Meathe v. Meathe, 83 Mich. 150.

[5] Dennis v. Dennis, 68 Conn. 186, 34 L. R. A. 449.

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establish her right, and her living with him after the statutory period, to reclaim and reform him, will not affect her rights; nor will letters or acts of interest called out upon the mistaken supposition that he would keep his promise to reform.[1]

General testimony that the libelee in a divorce suit is an habitual drunkard is not sufficient to warrant the granting of a divorce; the facts must be given in detail so that the court may judge whether or not they amount to habitual drunkenness.[2] But negative evidence that the witness has never seen the defendant intoxicated is not sufficient to rebut affirmative evidence of those who testify to having seen him drunk,[3] though the value of such testimony depends upon the intimacy of the witnesses with him and their intelligence and opportunity to observe, and is a question for the trial court.[4] And a decree denying a divorce on the ground of habitual drunkenness will not be disturbed on appeal, where the evidence in the record is not such that the court can feel entirely confident what decree ought to be made.[5]

A woman who marries a man who is a slave to whisky and morphine, with knowledge of the fact, however, assumes the risk, and will not be granted a divorce because he persists in their use.[6] And the commission of an act of adultery is a bar to a divorce on the ground of habitual drunkenness, and a wife sued for a divorce on that ground may recriminate that the husband had been guilty of adultery.[7] But the ways of life of the parties to an action for divorce on the ground of drunkenness, where such parties are unrefined, are not to be tested by the standard of cultivated people, but by the rules which respectable persons in the same conditions of life would spontaneously acknowledge;[8] and the fact that a wife was not of refined character, and not always truly ladylike, and had at times been guilty of profanity,

[1] Moore v. Moore, 41 Mo. App. 176.
[2] Batchelder v. Batchelder, 14 N. H. 380.
[3] Richards v. Richards, 19 Ill. App. 465.
[4] Walton v. Walton, 34 Kan. 195.
[5] McGonegal v. McGonegal, 46 Mich. 66.
[6] Tilton v. Tilton, 16 Ky. L. Rep. 538.
[7] Ryan v. Ryan, 9 Mo. 539.
[8] Kline v. Kline, 50 Mich. 438.

and that she acquiesced somewhat in the drinking habits of her husband, and had not remonstrated with him,—furnishes no excuse for abusing her in his drunken moods, and does not bar her right to a divorce.[1] Evidence proving the wasting, on the part of a husband, of his only estate, consisting of his mental and physical faculties, and of his failure to make suitable provision for his family, warrants a divorce under a statute authorizing it for confirmed habits of drunkenness on the part of the husband, accompanied by a wasting of his estate and failure to provide for his family.[2]

§ 2. *Drunkenness as affecting cruel and inhuman treatment.*

Drunkenness is not by itself sufficient to entitle a person to a divorce upon the ground of cruelty and inhuman treatment;[3] and adulterous conduct which falls short of actual adultery, and excessive drinking not amounting to habitual intemperance, do not constitute a cause of action for divorce for extreme cruelty, extreme cruelty being required to be something different from any other cause for divorce, constituting a separate and distinct cause of action;[4] nor is drunkenness, though accompanied by acts of considerable violence, a ground for judicial separation,—especially where the real ground for the application is that the husband wishes to get rid of a drunken wife.[5] And drunkenness, though repeated, does not warrant a divorce on the ground of indignities rendering the condition of the injured party intolerable, where the statute also provides for divorce on the ground of habitual drunkenness;[6] nor is excessively vicious conduct which will warrant a divorce, within the meaning of the statute, established by proof that the wife had become addicted to the habit of occasional intoxication, and of family broils and coarse, revolting language upon her part, and that she had on several occasions offered personal violence to her husband when he had

[1] Berryman v. Berryman, 59 Mich. 605.

[2] Shuck v. Shuck, 7 Bush, 306; McKay v. McKay, 18 B. Mon. 8.

[3] Anonymous, 17 Abb. N. C. 231; Mason v. Mason, 1 Edw. Ch. 278; Hudson v. Hudson, 3 Swab. & T. 314, 33 L. J. Prob. N. S. 5, 9 Jur. N. S. 1302, 9 L. T. N. S. 579, 12 Week. Rep. 216.

[4] Haskell v. Haskell, 54 Cal. 262.

[5] Scott v. Scott, 29 L. J. Prob. N. S. 64.

[6] Kempf v. Kempf, 34 Mo. 213.

interfered between her and his mother.[1] But a party to a marriage is not obliged to suffer two years of extreme and repeated cruelty before obtaining a divorce on that ground, because the cruelty is caused by habitual intemperance and the statute provides for divorce on the ground of habitual intemperance for the space of two years.[2] Nor is the right of a wife to relief affected by the fact that conduct on the part of her husband entitling her to a divorce for cruelty was the result of intemperance,[3] unless the wife consented to the habitual drunkenness.[4] Nor is it any mitigation of the offense where habitual drunkenness is itself a sufficient ground for divorce.[5] And acts of violence by a husband towards his wife, considered in connection with other misconduct, such as drunkenness, may be sufficient to warrant a dissolution of the marriage on the ground of cruelty, though each act, taken alone, might not constitute cruelty.[6] And cruelty of a husband while drunk toward an amiable and inoffensive wife is a ground for divorce, though he was goodnatured and kind when sober.[7] So, intemperance on the part of a wife, which entirely deprives her of power to control her passions, and puts her in such a state of mind that she is in the habit of assaulting her husband, is a ground for judicial separation in his favor, where their difculties are the consequence and not the cause of her intemperance.[8] But a wife is not entitled to a divorce and alimony on the ground of inhuman treatment endangering her life, because the husband's conversation and deportment were not always characterized by the delicacy and tenderness which might be expected, and during occasional paroxysms of passion, produced or aggravated by intoxication, he was sometimes vulgar, profane, and boisterous.[9]

[1] Shutt v. Shutt, 71 Md. 193.

[2] Harmon v. Harmon, 16 Ill. 85.

[3] Bowic v. Bowic, 3 Md. Ch. 51; McVickar v. McVickar, 46 N. J. Eq. 490.

[4] McVickar v. McVickar, 46 N. J. Eq. 490.

[5] Lee v. Lee, 3 Wash. 236; Camp v. Camp, 18 Tex. 528.

[6] Power v. Power, 11 Jur. N. S. 800, 4 Swab. & T. 173, 34 L. J. Prob. N. S. 137, 13 Week. Rep. 1113. And see Crichton v. Crichton, 73 Wis. 59.

[7] Lockridge v. Lockridge, 3 Dana, 28, 28 Am. Dec. 52.

[8] White v. White, 1 Swab. & T. 592, 6 Jur. N. S. 28, 1 L. T. N. S. 197. And see Mack v. Handy, 39 La. Ann. 491; Leake v. Linton, 6 La. Ann. 262; Williams v. Goss, 43 La. Ann. 868.

[9] Boggess v. Boggess, 4 Dana, 308.

And the use of abusive language to a wife by a husband, and habits of constant intoxication, do not amount to legal cruelty.[1] So, cruelty justifying a divorce is not established by habitual drunkenness accompanied by annoyances and extraordinary conduct on the part of the husband, where he was not violent and had not threatened violence;[2] or by ill-treatment of a wife during spells of inebriation and proceeding from it, in the absence of evidence of a fixed purpose to treat her amiss, or that he no longer entertained affection for her;[3] or by a single blow given in a fit of passion during a drunken spree when reason was dethroned, where he subsequently repented it.[4] And habits of profanity upon the part of a husband towards his wife furnish no ground for divorce, though when taken in connection with indulgence in habits of intoxication they may be considered as giving color to his conduct.[5] Nor is a charge of cruelty by a wife to her husband, in the sense of bodily harm or serious danger to his health, supported by proof that she had acquired habits of intoxication, and of occasional outbreaks of passion and violence, where such outbreaks never occurred except when she was intoxicated, and the only personal violence offered occurred on two or three occasions when he interposed between her and his mother.[6] And a divorce in favor of a husband against his wife for adultery will not be denied on account of the cruelty of the husband, where the wife's drunken habits were the cause of his violence.[7]

Nor do habitual drunkenness and neglect to provide for one's wife and family constitute cruel and inhuman treatment.[8] Nor do occasional sallies of passion or rudeness of language and conduct tending to wound the moral and mental feelings, caused by indulgence in intoxication or otherwise, where no bodily harm is threatened and there is nothing to create apprehension of per-

[1] C—— v. C——, 28 Eng. L. & Eq. 603.
[2] Brown v. Brown, L. R. 1 Prob. & Div. 46.
[3] Brown v. Brown, 38 Ark. 324.
[4] Laing v. Laing, 21 N. J. Eq. 248.
[5] Powers v. Powers, 20 Neb. 529.
[6] Shutt v. Shutt, 71 Md. 193.
[7] Pearman v. Pearman, 1 Swab. & T. 601, 29 L. J. Prob. N. S. 54, 8 Week. Rep. 274.
[8] Camp v. Camp, 18 Tex. 528.

sonal injury.[1] Nor does mere intemperance accompanied by harshness of manner and indecency of conduct; there must be something more than mere injury to a person's sensibility or sense of delicacy.[2] But while the propensity to drink to intoxication is not of itself a ground for separation, if the consequences of intoxication produce bodily injury or endanger the wife's personal safety, the court will interfere.[3] And bodily injury inflicted upon a wife by her husband while suffering from delirium tremens is a sufficient ground for a judicial separation, where the court is satisfied that though the acute disorder may have subsided the wife cannot cohabit with him without danger of repetition of such bodily injuries.[4] And a decree for alimony will be made where it appears that the husband has indulged in the use of intoxicating liquor to such an extent as to produce repeated attacks of delirium tremens, during which he became very violent, rendering it necessary on one occasion for the wife to go to a neighbor's house, remaining all night, when he assaulted her upon her return and conducted himself in a violent manner.[5] So, the intemperance of the husband, and the fact that while under the influence of liquor he treated his wife in a cruel and barbarous manner, sometimes ejecting her from his premises, and at other times using toward her the most vulgar and offensive language, making false accusations against her,—entitle her to a divorce upon the ground of inhuman treatment.[6] And evidence of habitual intoxication of a husband, and that he was quarrelsome and profane and dangerous while in that condition, using profane and abusive language toward his wife, and threatening to inflict personal violence upon her, and that he had endeavored to execute his threats by chasing and attempting to strike her with a chair, and had on several occasions kicked her,—establishes legal cruelty.[7] So, proof of the intoxication of a husband, and that

[1] Mason v. Mason, 1 Edw. Ch. 278. And see Holland v. Holland, 4 Legal Gaz. 372.

[2] Waskam v. Waskam, 31 Miss. 154.

[3] Mason v. Mason, 1 Edw. Ch. 278.

[4] Marsh v. Marsh, 28 L. J. Prob. N. S. 13, 1 Swab. & T. 312, 5 Jur. N. S. 46.

[5] Roblin v. Roblin, 28 Grant, Ch. (U. C.) 439.

[6] Allen v. Allen, 31 Mo. 479; Lee v. Lee, 3 Wash. 236.

[7] Hughes v. Hughes, 19 Ala. 308.

while intoxicated he was quarrelsome, oppressive, and profane, and would walk the floor and flourish his cane and act as though he intended to strike his wife, and that she was frequently compelled to sit up all night, fearing that he would kill her,—justifies a divorce for cruelty.[1] And evidence of an almost constant state of gross intoxication, at times unfitting the husband for labor, and that what little he earned went for drink, and that his wife was often left without the commonest necessities of life, and that he habitually found fault with her and called her foul names, charging her publicly with the commission of criminal acts and consorting with other men, frequently threatening personal violence, once drawing a razor, and threatening to cut her, and shoving her off the porch,—justifies a divorce on the ground of indignities to the person.[2] So, inhuman treatment justifying a divorce is established by proof that a husband frequently becomes drunk, and while in that condition chokes his wife, and accuses her of unchastity, and locks her up, and threatens to smash her head;[3] and by evidence that he was an habitual drunkard, and when intoxicated was violent, profane, and grossly indecent, and that he frequently applied vile epithets to his wife and daughters, and threatened to kill them, pushing them about in his anger;[4] and by evidence of intemperate habits, and that on a trivial dispute he threw hot brandy and water in his wife's face, and struck her upon her refusal to clean his boots, and cut her hand by forcibly taking a knife away from her, and pulled her down stairs injuring her ankle, and threw a jug of water at her, and that he frequently threw cold water over her.[5] And it has been held that proof of dissipation on the part of a husband, and that he had squandered a large amount of money and acquired a thirst for drink, and that his temper had become soured, and that he often swore at his wife and twice struck her, and that his financial ruin was imminent,—entitles her to a divorce for cruel and inhuman treatment.[6] And where it was proved that a hus-

[1] Powers v. Powers, 20 Neb. 529.
[2] Mason v. Mason, 131 Pa. 161.
[3] Wheeler v. Wheeler, 53 Iowa, 511, 36 Am. Rep. 240.
[4] Crichton v. Crichton, 73 Wis. 59.
[5] Waddell v. Waddell, 2 Swab. & T. 584.
[6] Wachholz v. Wachholz, 75 Wis. 377.

band has been intemperate and grossly abusive, and that in two instances he turned his wife out of doors, and frequently refused to provide for his family the common necessities of life, and used personal violence against her, she was held entitled to a decree of separation for a term of years upon the theory that the case was not one of an aggravated character, and that there might be hope of reformation and reconciliation.[1]

So, though habits of intoxication on the part of a husband do not warrant a divorce or separation or alimony, they are ordinarily to be considered in connection with other objectionable acts on his part, as tending to show a greater liability of a recurrence of ill-treatment than if he were sober.[2] And evidence of drunkenness, in connection with evidence of personal violence or threats, may be considered in an action for a divorce on the ground of cruelty, as tending to explain the nature and character of the violence and threats.[3] And habits of profanity, though furnishing no ground for divorce, may be taken into consideration in connection with habits of intoxication, as giving color to the conduct of the husband.[4]

§ 3. *Drunkenness as affecting desertion.*

Where a husband continues his habits of intoxication to the extent of rendering it unsafe for his wife to live with him, for the statutory period, authorizing a divorce for desertion after her separation from him on that account, she is entitled to a divorce upon that ground.[5] And drunkenness which disqualifies a husband to discharge his marital duties and obligations, compelling the wife to leave him, constitutes a degree of cruelty in itself, which, if continued for a great length of time, as, for three years, in analogy for the time prescribed by the statute for abandonment, would warrant a divorce on that ground.[6] So, a woman who was compelled to separate from her husband because of his drunkenness, and was left to support herself and her children,

[1] Clutch v. Clutch, 1 N. J. Eq. 474.
[2] Roblin v. Roblin, 28 Grant, Ch. (U. C.) 448.
[3] Coursey v. Coursey, 60 Ill. 186; Harman v. Harman, 16 Ill. 85.
[4] Powers v. Powers, 20 Neb. 529.
[5] McVickar v. McVickar, 46 N. J. Eq. 490.
[6] Camp v. Camp, 18 Tex. 528.

and returned to her father, where she remained for the statutory period, is entitled to a divorce upon the ground that the husband had wilfully absented himself from her without making suitable provision for her support for three years.[1] And habits of intoxication so gross and confirmed as to render a continuance of cohabitation unendurable might justify a wife in separating from her husband, under the Massachusetts statute, although for want of proof that such habits had been contracted since marriage, or of cruel treatment, they would not amount to one of the statutory causes of divorce.[2] Intemperance and improvidence on the part of a husband, however, on account of which his wife refuses to live with him, do not render the separation a desertion by the husband within the meaning of the divorce law.[3] Nor do they amount to extreme cruelty that would justify a divorce *a mensa et thoro;*[4] but where a husband from whom his wife has separated because of his habits of intemperance, making it unsafe for her to live with him, so far reforms as to render it reasonably safe for her to resume cohabitation, it is his duty to seek her out and manifest his reformation; and if he fails to do so, and voluntarily prolongs the separation for the statutory period after his reformation, the wife being ignorant of the change, he is guilty of desertion which will warrant a divorce on that ground.[5]

VIII. Alcoholism as affecting offices and places of trust.

The test as to habitual drunkenness which will warrant the removal of a public officer is whether he was habitually intemperate whenever the opportunity was offered; and getting drunk four times, each time in a different month of the year, does not constitute such habitual drunkenness as will justify such removal.[6] And particular instances of drunkenness and of improper and unlawful acts are immaterial and out of place on a charge of habitual drunkenness, in a proceeding for the removal of an officer on that ground, though they might be used as evidence to

[1] James v. James, 58 N. H. 266.
[2] Lyster v. Lyster, 111 Mass. 327.
[3] Plimley v. Plimley, 35 N. J. Eq. 18; Laing v. Laing, 21 N. J. Eq. 248.
[4] Laing v. Laing, 21 N. J. Eq. 248.
[5] McVickar v. McVickar, 46 N. J. Eq. 490.
[6] Trigg v. State, 49 Tex. 645.

show the degree of intoxication or want of it, to establish or refute the charge or the fact of habitual drunkenness.[1]

So, a person found by inquisition to be an habitual drunkard is not thereby disqualified to perform the office of executor or administrator;[2] and habits of intemperance will not disqualify a person, otherwise entitled thereto, from receiving letters of administration, unless they be such as would warrant the overseers of the poor in designating him an habitual drunkard under statutes providing therefor, or a jury in adjudging him to be one.[3] Nor will the appointment of a person as administrator be disturbed under a statute providing that no person is competent to serve as administrator who, when appointed, is adjudged by the court to be incompetent to execute the duties of the trust by reason of drunkenness, upon evidence that he drank intoxicating liquors to a considerable extent at times, where it appears that for several years he had conducted a large business with such care, foresight, and attention as to acquire the reputation of being a conservative, successful, and clearheaded business man, and that other business men sought his counsel, and that he had attended to important business matters for others, and that his use of intoxicating liquors was temperate.[4] Habitual drunkenness is a sufficient cause for the removal of an administrator under a statute providing therefor, however, though there is no affirmative showing that he had thereby become incapable of discharging his duties.[5] And evidence that a person named in a will as an executor had used intoxicating liquors, and at times become intoxicated, and that he was under their influence a greater part of the time, having occasional sprees ending in delirium tremens, and that he had become insolvent,—is sufficient to warrant the surrogate in refusing to issue letters testamentary to him, and in removing him from his office as trustee, on the ground of incompetency by reason of improvidence and habitual drunkenness, though during the pendency of the proceedings his indulgence had been less open and excessive than before.[6] And

[1] Trigg v. State, 49 Tex. 645.
[2] Sill v. M'Knight, 7 Watts & S. 245.
[3] Elmer v. Kechle, 1 Redf. 472.
[4] Root v. Davis, 10 Mont. 228.
[5] Gurley v. Butler, 83 Ind. 501.
[6] Re Cady, 36 Hun, 122.

fixed habits of intemperance constitute a sufficient ground for the removal of a guardian of an insane person.[1] Whether one otherwise entitled to administration is incompetent by reason of drunkenness and improvidence, is a question of fact for the trial court when the evidence is conflicting, the findings of which will not be reversed on appeal.[2]

IX. Alcoholism as affecting the statute of limitations.

The incompetency which will exonerate a person from the consequences of his own laches, and exempt him from the operation of the statute of limitations, must be an incapacity preventing him from realizing the nature and consequences of any fraud that may have been practised upon him, and from understanding his rights, and precluding him from taking the necessary steps to right the wrong inflicted upon him.[3] Mere temporary excitement is not sufficient unless it has been carried to that degree which may be quite excessive, and the party is deprived of his reason and understanding.[4] And a drunkard is not an incompetent, like an idiot or one generally insane; he is simply incompetent upon proof that his understanding was clouded or his reason dethroned by actual intoxication at the time; and the mere fact that he has spent all the money he could procure in gratifying an inordinate taste for liquor does not constitute a sufficient incompetency to exonerate him from the consequences of his laches in not proceeding for relief within ten years after a deed was fraudulently obtained from him.[5] So far as legal capacity is concerned, however, it is immaterial from what cause such a state of mind arose, whether by the act of Providence or the party's own imprudence; and certiorari will lie to review an award of commissioners in assessing damages for land taken in the construction of a railroad, however, though an appeal was not taken within the time limited by law, where the landowner was voluntarily intoxicated.[6] And a direction by a person judicially found to be

[1] Kettletas v. Gardner, 1 Paige, 488.
[2] Re Connors, 110 Cal. 408.
[3] Wright v. Fisher, 65 Mich. 275.
[4] Bliss v. Connecticut & P. Rivers R. Co. 24 Vt. 424.
[5] Wright v. Fisher, 65 Mich. 275.
[6] Bliss v. Connecticut & P. Rivers R. Co. 24 Vt. 424.

an habitual drunkard, to the holder of a note against him, to send it to a designated person who would pay it, does not constitute an acknowledgment of an existing debt more than twenty years old, which will take it out of the statute of limitations.[1]

X. Alcoholism as affecting insurance.

A statement in an application for a life insurance policy, as to whether the applicant used any intoxicating liquors, refers to the customary and habitual use, and not to a single or incidental one,[2] a habit being defined in this connection to be a disposition or condition of the mind or body, a tendency or aptitude for the performance of certain actions, acquired by custom or frequent repetition of the same acts, that which is held or retained, the effect of customary or frequent repetition.[3] An occasional use of intoxicating liquors by the insured does not render him a man of intemperate habits within the meaning of a warranty that he is a person of temperate habits; and an exceptional case of excess will not make him so,[4] though he may have had an attack of delirium tremens resulting from an exceptional indulgence in drink prior to the issuance of the policy,[5] there being a distinction between periodical sprees and habitual intemperance, unless the sprees were frequent and aroused an uncontrollable appetite while they continued, which might amount to a habit of intemperance.[6] It is not necessary to the existence of intemperate habits, within the meaning of a warranty in an application for insurance, how-

[1] Hannum's Appeal, 9 Pa. 471.

[2] Van Valkenburgh v. American Popular Life Ins. Co. 9 Hun, 583.

[3] Holterhoff v. Mutual Ben. L. Ins. Co. 3 Am. L. Rec. 272, 4 Bigelow, Life & Acci. Ins. Rep. 395.

[4] Knickerbocker L. Ins. Co. v. Foley, 105 U. S. 350, 26 L. ed. 1055, 11 Fed. Rep. 766, note; Union Mut. L. Ins. Co. v. Reif, 36 Ohio St. 596, 38 Am. Rep. 613; Meacham v. New York State Mut. Ben. Asso. 120 N. Y. 238.

[5] Knickerbocker L. Ins. Co. v. Foley, 105 U. S. 350, 26 L. ed. 1055, 11 Fed. Rep. 766, note; Northwestern Mut. L. Ins. Co. v. Muskegon Nat. Bank, 122 U. S. 501, 30 L. ed. 1100.

[6] Holterhoff v. Mutual Ben. L. Ins. Co. 3 Am. L. Rec. 272, 4 Bigelow, Life & Acci. Ins. Rep. 395.

ever, that the excessive use of intoxicating liquors should be continuous and daily; and an instruction in an action on an insurance policy that the continuous and daily use of intoxicating liquor is necessary to constitute such habit is erroneous.[1] A warranty by a person whose life was insured, that he was not a person of intemperate habits, does not refer to extreme views as to what constitutes intemperate habits on either side, but to the question whether or not the habits of the insured were so far intemperate as to increase the risk;[2] the inquiry as to whether the applicant was temperate suggesting moderation, and not abstinence, and the warranty being to the effect that his habit is to refrain from excessive indulgence, and not to abstain from all use.[3]

But while a single or occasional excess does not make a man an habitual drunkard, if the habit and rule of his life are to indulge periodically and with increasing frequency and violence in excessive fits of intemperance, he is an habitual drunkard within the meaning of such warranty,[4] a daily or frequent use being an habitual use.[5] And the warranty is broken and the insurance forfeited by habitual intemperance, though the health of the insured remains good and his constitution unimpaired, and though his habits are not such as to injure him;[6] and the fact that one's habits were intemperate shortly before the application was made is evidence on the question as to his habits at that time.[7] So, a warranty in a contract of insurance that the habits of the insured were uniformly and strictly sober and temperate, and that he had never been addicted to the excessive and intemperate use of any alcoholic stimulants, and did not use intoxicating drinks habitually as a beverage, is not rendered untrue by the occasional use of intoxicating liquors, or by any use which would not make his

[1] Union Mut. L. Ins. Co. v. Reif, 36 Ohio St. 596, 38 Am. Rep. 613.

[2] United Brethren Mut. Aid Soc. v. O'Hara, 20 Pa. 256.

[3] Meacham v. New York State Mut. Ben. Asso. 120 N. Y. 237.

[4] Northwestern Mut. L. Ins. Co. v. Muskegon Nat. Bank, 122 U. S. 501, 30 L. ed. 1100.

[5] Ætna L. Ins. Co. v. Davey, 123 U. S. 739, 31 L. ed. 315.

[6] Southcombe v. Merriman, Car. & M. 286; McGinley v. United States L. Ins. Co. 77 N. Y. 495; Furniss v. Mutual L. Ins. Co. 14 Jones & S. 467; Fox v. Pennsylvania Mut. L. Ins. Co. (Pa.) 4 Bigelow, Life & Acci. Ins. Rep. 458.

[7] Daly v. John Hancock Mut. L. Ins. Co. (Ind.) 8 Ins. L. J. 319.

habits those of a man not uniformly and strictly sober and temperate,[1] and is not a warranty that he did not use such stimulants at all, but merely one that he did not use them habitually;[2] and such a warranty does not apply to an improper use by him of alcoholic stimulants after the date of the policy.[3] Habits subsequently acquired, though causing death, will not affect the policy in the absence of express stipulation to that effect,[4] and a declaration by the insured in his application, that he does not and will not practice any habit that tends to shorten life, is a mere declaration, and not a statement of fact or warranty the violation of which will effect the forfeiture of the policy.[5]

Provisions in an insurance policy, that the insured shall not become so far intemperate as to impair his health, however, do not necessarily imply habitual intemperance producing impairment of the health; any intemperance producing such impairment rendering a policy null and void, though it does not amount to habitual intemperance;[6] and acquiring habits of intemperance is within a condition in a policy that it shall be void if the habits of the insured should change so as to increase the risk;[7] and the insurer would be entitled to know that the insured had been recently afflicted with delirium tremens and had required the services of a physician on account of his excessive drinking.[8] And an excessive use of alcoholic stimulants not taken in good faith for medical purposes or under medical advice, whereby the health of the insured is impaired, is within such a condition, though the insured may not have had delirium tremens, and though, previous to his last illness, he had not indulged in strong drinks for such a long period of time or so frequently as to be-

[1] Swick v. Home L. Ins. Co. 2 Dill. 160.

[2] Ætna L. Ins. Co. v. Davey, 123 U. S. 739, 31 L. ed. 315.

[3] Ætna L. Ins. Co. v. Davey, 123 U. S. 739, 31 L. ed. 315.

[4] Reichard v. Manhattan L. Ins. Co. 31 Mo. 518; Horton v. Equitable L. Assur. Soc. (N. Y.) 2 Bigelow, Life & Acci. Ins. Rep. 108.

[5] Knecht v. Mutual L. Ins. Co. 90 Pa. 118. But see Holterhoff v. Mutual Ben. L. Ins. Co. 3 Am. L. Rec. 272, 4 Bigelow, Life & Acci. Ins. Rep. 395.

[6] Ætna L. Ins. Co. v. Davey, 123 U. S. 739, 31 L. ed. 315.

[7] Boyce v. Phœnix Mut. L. Ins. Co. 14 Can. S. C. 723.

[8] Hutton v. Waterloo L. Assur. Co. 1 Fost. & F. 735. And see Forbes v. Edinburgh L. Assur. Co. 10 Shaw & D. Sc. Sess. Cas. 451.

come habitually intemperate.[1] But the impairment of health, to be within a condition that the policy shall be void if the assured shall become so far intemperate as to impair his health seriously and permanently or to induce delirium tremens, must have been not only serious but permanent;[2] and evidence of drinking sufficient to impair health but not showing that it was actually impaired, is not admissible.[3]

So, a provision in an accident insurance policy against liability for injury happening while the insured is intoxicated or in consequence of intoxication relieves from liability for injuries sustained while the insured was intoxicated, whether the intoxication caused or contributed to the injury or not;[4] and such a provision exempts the insurer from liability where the insured was accidentally shot while intoxicated, without regard to whether or not the intoxication had any agency in producing the death of the insured;[5] though it would not apply when the intoxication was caused by the use of spirituous liquor, opium, or other drugs administered to the person while sick, by a physician.[6]

And the drinking of intoxicating liquors by a member of a society for the insurance of its members and for the enforcement of total abstinence among them, having a by-law to the effect that any member violating his pledge shall be by the very act suspended and expelled when proved guilty, the expulsion to take effect from the day of the violation, effects a self-executing suspension of membership, requiring no trial or adjudication of expulsion, depriving him of all rights, benefits, and privileges therein, though his violation was not known until after his death.[7] So, a particular, specific, and special stipulation in an insurance policy in which no other subject is mentioned, that if the insured becomes habitually intemperate, or so far intemperate as to

[1] Ætna L. Ins. Co. v. Davey, 123 U. S. 739, 31 L. ed. 315.

[2] Ætna L. Ins. Co. v. Deming, 123 Ind. 384.

[3] Odd Fellows Mut. L. Ins. Co. v. Rohkopp, 94 Pa. 59.

[4] Standard Life & Acci. Ins. Co. v. Jones, 94 Ala. 434.

[5] Shader v. Railway Pass. Assur. Co. 5 Thomp. & C. 643.

[6] New York L. Ins. Co. v. La Boiteaux (Ohio) 5 Bigelow, Life & Acci. Ins. Rep. 437; Holterhoff v. Mutual Ben. L. Ins. Co., 3 Am. L. Rec. 272, 4 Bigelow, Life & Acci. Ins. Rep. 395.

[7] Smith v. Knights of Father Mathew, 36 Mo. App. 184.

impair health or induce delirium tremens, his policy may be canceled and the insurer absolved from liability except for the surrender value—is to be preferred over a general stipulation that in such case the policy should become null and void, so that it would remain in full force if no steps had been taken to cancel it.[1] And an instruction in an action upon an insurance policy, defining the term "delirium tremens" as used in a condition in the policy as signifying a diseased condition of the brain produced by an excessive use of spirituous liquors, is not unfair to the insurer.[2]

The question whether the insured was of intemperate habits at the time of the issue of a policy containing a warranty with reference thereto, and whether he became habitually intemperate after its issue, are questions of fact for the jury.[3] And so is the question whether an alleged moderate use of intoxicating liquors by the insured amounts to a breach of the condition of a policy in which he had stated that he was of correct and temperate habits, and whether he died from dissipation.[4] And where the evidence is conflicting as to whether the assured was intoxicated at the time of his death, in an action upon a policy conditioned against liability in case of death while intoxicated, and consists of the opinion of persons who saw him before and after the accident as to whether he was not intoxicated and was using due care, a verdict for the plaintiff will not be disturbed.[5] Nor will a judgment in an action upon an insurance policy conditioned against liability in case the assured shall become so far intemperate as to impair his health seriously or permanently, or as to induce delirium tremens, be reversed on the ground that it is not sustained by the evidence, where the testimony as to the fact of intoxication was conflicting.[6]

[1] Northwestern Mut. L. Ins. Co. v. Hazelett, 105 Ind. 212, 55 Am. Rep. 192.

[2] Ætna L. Ins. Co. v. Deming, 123 Ind. 384.

[3] Northwestern Mut. L. Ins. Co. v. Muskegon Nat. Bank, 122 U. S. 501, 30 L. ed. 1100; Swick v. Home L. Ins. Co. 2 Dill. 160; John Hancock Mut. L. Ins. Co. v. Daly, 65 Ind. 6; Holterhoff v. Mutual Ben. L. Ins. Co. 3 Am. L. Rec. 272, 4 Bigelow, Life & Acci. Ins. Rep. 395; Mowry v. Home L. Ins. Co. 9 R. I. 346.

[4] Meacham v. New York State Mut. Ben. Asso. 120 N. Y. 238.

[5] Sutherland v. Standard Life & Acci. Ins. Co. 87 Iowa, 505.

[6] Ætna L. Ins. Co. v. Hanna, 81 Tex. 487.

So, one who drinks to intoxication, and while in that condition, by accident or mistake, takes an overdose of laudanum, and dies therefrom, does not die by his own hand within the meaning of a condition against such death in an insurance policy, though the mistake or accident was to some extent occasioned by his drunkenness.[1] And habits of intoxication acquired subsequent to insurance do not invalidate a policy, in the absence of an express provision therefor, though they were the cause of the death of the insured.[2] And intemperance, within a warranty in an insurance policy, must have been the proximate cause of death; it is not sufficient that it merely contributed to it;[3] though death from sickness from intoxication in consequence of neglect is within a condition against death from the use of intoxicating drinks.[4]

XI. Guardianship and restraint of alcoholics.

§ 1. *What drunkenness warrants.*

Courts of chancery have the custody and the control of the person, as well as of the estate, of habitual drunkards, and can exercise that control by means of a committee as in the case of a lunatic.[5] And while proceedings are usually taken against them under special statute or statutes with relation to spendthrifts, it has been held that the appointment of a guardian for the person and estate of one whose mind has become unsound from the constant use of alcoholic liquor, thereby rendering him incapable of conducting his own affairs, is authorized by a statute providing for the appointment of guardians to take the care, custody, and management of idiots, insane persons, and all who are incapable

[1] Equitable L. Assur. Soc. v. Paterson, 41 Ga. 338, 5 Am. Rep. 535.

[2] Reichard v. Manhattan L. Ins. Co. 31 Mo. 518; Horton v. Equitable L. Assur. Soc. (N. Y.) 2 Bigelow, Life & Acci. Ins. Rep. 108; Shader v. Railway Pass. Assur. Co. 5 Thomp. & C. 643.

[3] Miller v. Mutual Ben. L. Ins. Co. 31 Iowa, 218, 7 Am. Rep. 122; Holterhoff v. Mutual Ben. L. Ins. Co., 3 Am. L. Rec. 272, 4 Bigelow, Life & Acci. Ins. Rep. 395.

[4] New York L. Ins. Co. v. La Boiteaux (Ohio) 5 Bigelow, Life & Acci. Ins. Rep. 437; Holterhoff v. Mutual Ben. L. Ins. Co., 3 Am. L. Rec. 272, 4 Bigelow, Life & Acci. Ins. Rep. 395.

[5] Re Lynch, 5 Paige, 120; Re Tracy, 1 Paige, 580; Hill v. Horton, 4 Dem. 90. But see Re Brown, 1 Abb. Pr. 112.

of conducting their own affairs.[1] Statutes authorizing proceedings upon due notice, to determine whether a person is an habitual drunkard, and if so found, and if incapable of managing his own estate, or that there is danger of his squandering it, providing that a guardian should be appointed of his person and estate, with the power and subject to the restriction conferred and imposed upon guardians for minors,—are not unconstitutional as depriving a citizen of the right to enjoy, control, and dispose of his property and to make contracts.[2] And a finding that a person is an habitual drunkard, without reference to whether or not he is of unsound mind, violates no constitutional right.[3] Drunkenness is habitual and will authorize the issue of a commission when it is customary, usual, or common, as distinguished from seldom, unusual, or uncommon.[4] An habitual drunkard is one who is in the habit of getting drunk, or who commonly or frequently is drunk.[5] But mere occasional acts of drunkenness are not sufficient to constitute one an habitual drunkard;[6] though it is not necessary that he should be constantly in an intoxicated condition.[7] One is addicted to habitual drunkenness who has a fixed habit of frequently getting drunk, though he may be oftener sober than drunk, and may be sober for weeks at a time.[8] But proof of drunkenness on one occasion is not sufficient to establish habitual drunkenness, on an application for the appointment of a committee.[9] A man may drink occassionally to excess and not be an habitual drunkard. Before he can be regarded as such it must appear that he drinks to excess so frequently that it has become a fixed practice or habit with him.[10] Where a person for any considerable period of his time is intoxicated, however, to

[1] Re Wetmore, 6 Wash. 271.
[2] Devin v. Scott, 34 Ind. 67.
[3] Com., McGinnis, v. McGinnis, 3 Pittsb. 445.
[4] Com., McGinnis, v. McGinnis, 3 Pittsb. 445.
[5] State v. Pratt, 34 Vt. 323; Ludwick v. Com. 18 Pa. 174.
[6] Ludwick v. Com. 18 Pa. 174; Murphy v. People, 90 Ill. 59; Re Hoyt, 20 Abb. N. C. 162.
[7] Ludwick v. Com. 18 Pa. 174; State v. Pratt, 34 Vt. 323; Walton v. Walton, 34 Kan. 195.
[8] Brown v. Brown, 38 Ark. 324.
[9] Re Hoyt, 20 Abb. N. C. 162.
[10] Walton v. Walton, 34 Kan. 195.

such a degree as to deprive him of his ordinary reasoning faculties, it is prima facie evidence that he is incapable of managing his affairs;[1] and proof that a person has been drunk from five to seven times on as many different days within a period of between three and four months will justify a conviction as a common drunkard, though there is no evidence of his condition at other times, and he is not entitled to a ruling that he is presumed to have been sober at such other times.[2] So, evidence as to the conduct of a person at other times when intoxicated may be given for the purpose of showing the character of the acts relied upon as evidence of intoxication, though it would not be evidence of present intemperance;[3] and evidence that a party used liquor to excess at some particular time, and that the witness had seen him the worse for liquor a number of times, and that he was a dissipated man, tends to show that he was an habitual drunkard, but its sufficiency is a question for the jury;[4] and the better practice would be for the court in all cases of doubt, especially under acts relating to habitual drunkards, to direct an issue to the jury.[5] And a judgment finding that a person was in the habit of getting intoxicated will not be reversed on appeal, where the evidence shows that he had been drunk from three to five times within the preceding two years.[6] It cannot be said as a rule of law, however, that because a man is a drunkard he is of unsound mind, and unsoundness of mind is not presumed therefrom,[7] and negative testimony of persons having knowledge of another's habits, that they never saw him intoxicated, is not sufficient to overcome affirmative testimony of others who were also acquainted with his habits, that they had seen him drunk.[8] One who is found by inquest to be an habitual drunkard need not also be found incapable of managing his estate, to justify the confirmation of the inquisition, as such incapacity is presumed and is

[1] Re Tracy, 1 Paige, 580.
[2] Com. v. McNamee, 112 Mass. 285.
[3] State v. Huxford, 47 Iowa, 16.
[4] State v. Pratt, 34 Vt. 324.
[5] Re Tracy, 1 Paige, 580.
[6] Murphy v. People, 90 Ill. 59.
[7] Lang's Estate, 65 Cal. 19.
[8] Murphy v. People, 90 Ill. 59.

a conclusion of law. And the fact that a person is able to take care of himself and manage his estate is no defense to a proceeding to have him declared an habitual drunkard, where habitual drunkenness is shown.[1] So, where a party has been found to be incapable of managing his affairs by reason of habitual drunkenness, the court will not discharge his committee and restore his property to him upon mere proof of the fact that he is competent to manage his affairs, without proof of a permanent reformation; and as a general rule the court will require, as evidence of permanent reformation, satisfactory proof that he has voluntarily refrained from the use of intoxicating liquors for at least one year preceding the application.[2] But proceedings for the appointment of a committee of an alleged habitual drunkard are for the protection of his family, and where the family and committee fail to procure the allowance of the committee's bond, and the committee fails to take charge of his property for upwards of twenty years, leaving the drunkard the management thereof until his death, a presumption of the abandonment of the proceedings and that they had been discharged arises.[3]

Medical men employed by an alleged habitual drunkard or his friends are justified in taking such measures as are reasonably necessary, either to cure or restrain him while suffering from delirium tremens, so long as the fit lasts or is likely to return; and where no more restraint was used than was necessary as part of the medical treatment they are not liable for such restraint;[4] and he may be restrained from doing business during such time.[5]

§ 2. *Inquisition of habitual drunkenness as evidence.*

As to acts done by an habitual drunkard before the issuing of the commission, and which are overreached by a retrospective finding of the jury, the inquisition is only presumptive, and not conclusive, evidence of incapacity.[6] And the rule is laid down

[1] Ludwick v. Com. 18 Pa. 172.
[2] Com., McGinnis, v. McGinnis, 3 Pittsb. 445.
[3] Re Hoag, 7 Paige, 312.
[4] Leckey v. Cunningham, 56 Pa. 370.
[5] Symm v. Fraser, 3 Fost. & F. 859; Scott v. Wakem, 3 Fost. & F. 328.
[6] Scott v. Wakem, 3 Fost. & F. 328.
[7] L'Amoureux v. Crosby, 2 Paige, 427; Wadsworth v. Sherman, 14 Barb. 169; Tozer v. Saturlee, 3 Grant, Cas. 169; Re Haviland, 1 W. N. C. 345; Klohs v. Klohs, 61 Pa. 245

generally that an inquisition finding a party to be an habitual drunkard is only prima facie evidence of incapacity, and its only effect is to shift the burden of proof to the party asserting capacity,[1] who is required to prove that the party was able to understand the character of his acts at the time;[2] and this is the rule whether the finding be negative or affirmative.[3] But under statutes contemplating a complete transfer of the property to the custody of the law, and prohibiting all gifts of goods and chattels of an habitual drunkard, and prohibiting him from contracting, such transfers and contracts are utterly void; and an inquisition finding the person to be an habitual drunkard is conclusive of his incapacity to dispose of his property or to contract debts from the time it was made,[4] even as against a bona fide holder of a bill or note, and even though he may have enjoyed lucid intervals;[5] and an inquisition by which a person is found to be of unsound mind and incapable of conducting his own affairs in consequence of habitual drunkenness is conclusive evidence of his incapacity subsequently to waive notice of nonpayment and protest of a promissory note, though the note was made previous to the finding of the inquisition; and evidence that at the time of signing the waiver he was perfectly sober and competent is inadmissible.[6] And the collection of a judgment rendered against a person under guardianship as an habitual drunkard, to which the guardian was not made a party and of which he had no knowledge until after its rendition, on a contract made after the inquisition, will be enjoined at the suit of the guardian, where it does not affirmatively appear that the contract was for necessaries furnished and that the guardian had failed to make needful provisions.[7] This doc-

[1] Leckey v. Cunningham, 56 Pa. 370; Noel v. Karper, 53 Pa. 97; McGinnis v. Com. 74 Pa. 245; Miskey's Appeal, 107 Pa. 611; Leonard v. Leonard, 14 Pick. 280. And see Johnson's Estate, 57 Cal. 529; Lewis v. Jones, 50 Barb. 645.

[2] Noel v. Karper, 53 Pa. 97.

[3] Miskey's Appeal, 107 Pa. 611.

[4] Devin v. Scott, 34 Ind. 67; Wadsworth v. Sharpsteen, 8 N. Y. 388, 59 Am. Dec. 499; Wadsworth v. Sherman, 14 Barb. 171; L'Amoureux v. Crosby, 2 Paige, 427; Re Patterson, 4 How. Pr. 34.

[5] Wadsworth v. Sharpsteen, 8 N. Y. 388, 59 Am. Dec. 499; Tozer v. Saturlee, 3 Grant, Cas. 162.

[6] Wadsworth v. Sherman, 14 Barb. 169.

[7] Rogers v. State, 33 Ind. 543.

trine, however, does not apply to wills, and a will is not rendered absolutely void by the fact that the testator when he made it was subject to a commission as an habitual drunkard. It is valid if at that time he had sufficient mental capacity to make it, notwithstanding the commission, the existence of which is only prima facie evidence of incapacity in such cases, which may be rebutted by proof.[1] And the fact that a person found by inquisition to be an habitual drunkard is engaged in his business as a mechanic in the regular way, after the finding as before, is sufficient proof of mental soundness to sustain his receipt of money from his employer in discharge of an indebtedness for labor performed.[2] Nor will a finding that a testator is an habitual drunkard, made thirty-five years before, which had never been reversed or set aside, affect the validity of his will, where the committee appointed neither gave bond nor took charge of his property, leaving him from that time until his death to manage his own affairs in his own way, and where there was nothing to show that he was a drunkard when the will was made.[3] And property sold by a person who had been declared an habitual drunkard and a commissioner appointed over him, cannot be recovered where the commissioner neither acted nor gave bond and his friends permitted him to buy and sell real estate.[4]

XII. Alcoholism as affecting negligence.

The self-imposed disability of intoxication affords no more excuse in the law of negligence than it does in the criminal law;[5] and voluntary drunkenness is not available to avert the usual and natural consequences flowing from the drunken man's acts; and he will be held to the same measure of responsibility as a sober man, and his actions judged by the same standard in negligence cases.[6] Nor does partial intoxication dispense with the duty of self-protection by proper care to avoid danger.[7] A man cannot

[1] Lewis v. Jones, 50 Barb. 645; Leckey v. Cunningham, 56 Pa. 373. But see Re Patterson, 4 How. Pr. 34.

[2] Black's Estate, 132 Pa. 134.

[3] Leckey v. Cunningham, 56 Pa. 370.

[4] Bixler v. Gilleland, 4 Pa. 156.

[5] Smith v. Norfolk & S. R. Co. 114 N. C. 728, 25 L. R. A. 287.

[6] Welty v. Indianapolis & V. R. Co. 105 Ind. 55.

[7] Missouri P. R. Co. v. Evans, 71 Tex. 361, 1 L. R. A. 476; McDonald v. Chicago, M. & St. P. R. Co. 75 Wis. 121.

voluntarily place himself in a condition whereby he loses such control of his brain or muscles as a man of ordinary prudence and caution in the full possession of his faculties would exercise, and by such loss of control contribute to an injury to himself, and then require a recompense therefor from one who was ignorant of his condition.[1] And the intoxication of a trespasser on a railway track, who is killed by a train at a curve in a cut, does not exempt him from the consequence of his contributory negligence, where it was unknown to the persons in charge of the train, and they had no reason to anticipate that he was on the track in such a condition.[2] And the fact that a minor who had reached years of discretion was intoxicated at the time of a sale of a drug to him, which caused his death, does not render the seller liable to his father, where the intoxication was not such as to deprive him of all intelligence,[3] and the fact that a person in charge of a warehouse was drunk at the time of a fire does not warrant the submission of the question of negligence to the jury in an action for goods thereby destroyed.[4] Nor does the fact that a person injured by being run over by a street car was intoxicated at the time afford any excuse for his negligence, or prevent it from being a bar to a recovery for the injuries received.[5] And a passenger on a railway train who sustained injuries from leaving the train while in motion because sufficient time had not been given for that purpose cannot recover where he had drank intoxicating liquor before taking passage and such drinking contributed to the injury.[6] And a railroad company whose engine injures a person upon its tracks is not responsible therefor if he was in a fit of intoxication, or drunk, at the time, and the accident was caused in any degree by his intoxication, unless it was caused by the wanton and wilful negligence of persons having charge of the train.[7] And one

[1] Strand v. Chicago & W. M. R. Co. 67 Mich. 380; Price v. Philadelphia, W. & B. R. Co. 84 Md. 506, 36 L. R. A. 213.

[2] Memphis & C. R. Co. v. Womack, 84 Ala. 149.

[3] Meyer v. King, 72 Miss. 1.

[4] Young v. Wilmington & W. R. Co. 116 N. C. 932.

[5] Weeks v. New Orleans & C. R. Co. 32 La. Ann. 615.

[6] Strand v. Chicago & W. M. R. Co. 67 Mich. 380.

[7] Houston & T. C. R. Co. v. Sympkins, 54 Tex. 615, 38 Am. Rep. 632; Alger v. Lowell, 3 Allen, 402.

who is injured while intoxicated, in attempting to drive over a washout or chasm extending across the highway, cannot recover of the county, where if he had been sober he could have seen it and escaped injury, as in such case voluntary intoxication is in itself negligence.[1]

The intoxication of a person injured, however, is not *per se* a defense to an action for damages for personal injury.[2] The mere fact of intoxication does not establish want of ordinary care, unless it contributed to the injury,[3] though it raises a presumption of negligence;[4] and the intoxication of the plaintiff in an action for personal injury, at the time in question, or the question whether or not he was intoxicated, is immaterial, where no want of care or prudence can be imputed to him;[5] and evidence of intoxication is not conclusive as to negligence unless it was the proximate cause of the injury.[6] Drunkenness is not a defense in an action for negligence, by way of contributory negligence, unless it was the substantial cause of the injury; but if a person drinks under such circumstances that a reasonably prudent man would foresee that he was putting himself in such a condition that the injury might possibly happen, his drunkenness will then be a defense.[7] Nor is being abroad in a city street at night in a state of intoxication negligence as a matter of law, but it is a cir-

[1] Woods v. Tipton County Comrs. 128 Ind. 289.

[2] Lynch v. New York, 47 Hun, 524; Newton v. Central Vermont R. Co. 80 Hun, 491; Thorp v. Brookfield, 36 Conn. 320; Baltimore & O. R. Co. v. Boteler, 38 Md. 568; Maguire v. Middlesex R. Co. 115 Mass. 239; Stuart v. Machias Port, 48 Me. 477; Meyer v. Pacific R. Co. 40 Mo. 151.

[3] Ditchett v. Spuyten Duyvil & P. M. R. Co. 5 Hun, 165; Healy v. New York, 3 Hun, 708; Central R. & Bkg. Co. v. Phinazee, 93 Ga. 488; Baltimore & O. R. Co. v. State, Chambers, 81 Md. 371; Alger v. Lowell, 3 Allen, 405; Meyer v. Pacific R. Co. 40 Mo. 151; Houston & T. C. R. Co. v. Reason, 61 Tex. 613; Ward v. Chicago, St. P. M. & O. R. Co. 85 Wis. 601; Newton v. Central Vermont R. Co. 80 Hun, 491. And see Ridley v. Lamb, 10 U. C. Q. B. 354.

[4] Alger v. Lowell, 3 Allen, 405; Pennsylvania R. Co. v. Books, 57 Pa. 339; Huntingdon & B. T. R. & Coal Co. v. Decker, 84 Pa. 419, 82 Pa. 119.

[5] Ward v. Chicago, St. P. M. & O. R. Co. 85 Wis. 601; Central R. & Bkg. Co. v. Phinazee, 93 Ga. 488.

[6] Northern P. R. Co. v. Craft, 69 Fed. Rep. 124; Alger v. Lowell, 3 Allen, 405; Seymer v. Lake, 66 Wis. 651; Ward v. Chicago, St. P. M. & O. R. Co. 85 Wis. 601.

[7] Davis v. Oregon & C. R. Co. 8 Or. 172.

cumstance from which a jury might find the existence of negligence as a fact.[1] And the question whether a person injured while attempting to cross a dangerous bridge was negligent so as to free the town from liability for the injury depends upon whether or not he exercised reasonable care to avoid the danger, and not upon whether or not he was intoxicated.[2] But the intoxication of a person injured is evidence of contributory negligence on his part,[3] and should be taken into consideration by the jury, with the other facts of the case, in determining whether or not he exercised reasonable care to avoid danger;[4] and the intoxication, to any degree, of a person injured, is proper to be considered in an action for the injury, in determining the existence of contributory negligence.[5] Thus, the intoxication of the plaintiff in an action against a city to recover damages caused by a fall due to defects in a sidewalk is a material question, as tending to show want of ordinary care on his part;[6] and the fact that a person was intoxicated at the time of receiving an injury is a circumstance to go to the jury in an action therefor, on the question of negligence.[7] And a refusal to instruct the jury in an action for damages for an injury upon the public highway, that if the person injured was so intoxicated as to be incapable of properly conducting himself and driving his team no recovery can be had, is not error, where the jury were told that if he was so intoxicated at the time of the injury that of itself would throw the burden of proof upon the plaintiff to show that he exercised ordinary care and prudence, and that his intoxication was prima facie evidence of want of ordinary care.[8] So, evidence in an action for a personal injury caused by the falling of a bridge, of

[1] Cramer v. Burlington, 42 Iowa, 315.

[2] Thorp v. Brookfield, 36 Conn. 320.

[3] Lynch v. New York, 47 Hun, 524.

[4] Thorp v. Brookfield, 36 Conn. 320; Alger v. Lowell, 3 Allen, 402; Hankinson v. Charlotte, C. & A. R. Co. 41 S. C. 1; Houston & T. C. R. Co. v. Waller, 56 Tex. 331.

[5] Fitzgerald v. Weston, 52 Wis. 354.

[6] Aurora v. Hillman, 90 Ill. 61.

[7] Thorp v. Brookfield, 36 Conn. 324; Stuart v. Machias Port, 48 Me. 477; Seymer v. Lake, 66 Wis. 651; Northern P. R. Co. v. Craft, 69 Fed. Rep. 124.

[8] Burns v. Elba, 32 Wis. 605.

the intoxication of the plaintiff, furnishes a circumstance tending to corroborate proof of carelessness; but, standing alone, it is not such proof, and does not shift the burden of proof to the plaintiff to show that he exercised due care.[1] And intoxication is not necessarily evidence of contributory negligence, where the intoxicated party, who was a passenger upon a boat landed at a pontoon on a dark night, there being no light upon it except one lantern in the hands of a deck hand, fell into the river through a space between the pontoon and the bridge, which was from 18 inches to 2 feet wide, and was drowned, the space being due to the fact that the boat had not landed in its usual position.[2] Nor does the purchasing and drinking liquor constitute contributory negligence which will bar a recovery in an action against a saloonkeeper for selling liquor to a customer until he became intoxicated and unconscious, and then expelling him from the saloon at a late hour, thereby causing his death.[3]

Where a person receiving a personal injury is intoxicated to such an extent as to render him incapable of a vigilant use of his faculties, and such intoxication causes his injury, which would not have happened otherwise, no recovery can be had.[4] And one who voluntarily uses intoxicating drinks until he becomes helpless, or his powers are so far impaired that he is unable to exert the necessary efforts to avoid danger, is guilty of negligence when he places himself in a position of danger.[5] Contributory negligence is not to be imputed to a person injured from falling into an excavation, from the mere fact that he had indulged in drink, however, unless the degree of his intoxication was such as to justify a jury in finding that he was thereby disqualified from the exercise of ordinary care and prudence;[6] but an instruction in an action for a personal injury, that the fact of intoxication of the person injured, alone, would not prove contributory negligence unless it amounted to imbecility, is erroneous as liable to

[1] Ford v. Umatilla County, 15 Or. 313.

[2] Holmes v. Oregon & C. R. Co. 5 Fed. Rep. 523.

[3] Weynine v. Wolfe, 52 Iowa, 533.

[4] Bradley v. Second Ave. R. Co. 8 Daly, 289. And see Brand v. Schenectady & T. R. Co. 8 Barb. 368; Lynch v. New York, 47 Hun, 524.

[5] Chicago C. R. Co. v. Lewis, 5 Ill. App. 242; Illinois C. R. Co. v. Cragin, 71 Ill. 177.

[6] O'Hagan v. Dillon, 10 Jones & S. 458.

mislead the jury.[1] Thus, one who receives an injury on a highway while so intoxicated as to be unable to manage and conduct himself and his affairs with ordinary care, if this want of ordinary care contributed in the least degree to produce the injury, is not entitled to recover.[2] And one who in a state of intoxication goes upon a street-car track, and falls down, unable to support himself, from intoxication, and is run over by a car, is guilty of contributory negligence which will prevent a recovery.[3] And testimony of the driver of a car which had run over and killed a man, that the deceased came staggering over to catch the horses by the heads, and seemed to be drunk, but that he could not say positively that he was, is sufficient evidence of intoxication to entitle the defendant to have the jury instructed as to the effect of intoxication upon the right to recover.[4] So, one who, while incapable from intoxication of protecting himself, goes into a train of cars which he was forbidden to enter, without the knowledge or consent of the conductor, cannot hold the railroad company to any duty beyond ordinary care to protect him from injury while upon the train and while alighting therefrom and getting into a reasonably safe position.[5] And a person injured cannot recover where, from partial stupor from drink or from reckless temerity, he undertakes to cross a railroad track with the train in full view.[6] Nor can a recovery be had against a railroad company for killing a person stupefied by liquor, who, knowing that the trains passed irregularly, stood upon the tracks after dark, and was struck by a slowly moving locomotive having no lighted headlight.[7] And one who is stupefied with liquor, and, seeing a locomotive slowly backing, misjudges as to its speed, and attempts to pass before it, and is knocked down and crushed, cannot recover for the injury.[8] So, one who has been drinking, and, feeling the influence of the liquor, sits down out-

[1] Fitzgerald v. Weston, 52 Wis. 354.

[2] Cassedy v. Stockbridge, 21 Vt. 391; Rock Island v. Vanlandschoot, 78 Ill. 485.

[3] Button v. Hudson River R. Co. 18 N. Y. 248.

[4] Bradley v. Second Ave. R. Co. 8 Daly, 289.

[5] Missouri P. R. Co. v. Evans, 71 Tex. 362, 1 L. R. A. 476.

[6] Toledo, P. & W. R. Co. v. Riley, 47 Ill. 514.

[7] Marquette, H. & O. R. Co. v. Handford, 39 Mich. 537.

[8] Brand v. Schenectady & T. R. Co. 8 Barb. 368.

side of a railroad track, between two ties, near the rail, with his head toward the track, leaning upon his elbow, and goes to sleep, is guilty of such contributory negligence as will prevent a recovery for an injury there received.[1] And one who voluntarily becomes drunk, and falls or lies down in a state of insensibility on a railroad track, so that he is injured by a passing train, cannot recover for injuries so received,[2] though there may have been contributory negligence on the part of the employees of the road.[3]

So, one who while intoxicated places himself on a railroad track running along a street, where trains are constantly passing and repassing, and remains until run over and killed by a passing engine, is guilty of such gross negligence as to bar a recovery from the railroad company unless its servants wilfully caused his death, or were guilty of such gross negligence as amounted in law to wilful neglect of duty.[4] And the contributory negligence of a man who becomes drunk or unconscious upon a railway track would bar a recovery for injuries sustained, though the engineer was also guilty in failing to discover him in time to avert injury, as his negligence must be concurrent with, if not subsequent to, that of the engineer, operating, as it did, up to the very moment of the collision.[5] And one who is injured by being struck by a train when so intoxicated as not to be able to take care of himself or heed the warnings of the approaching train, whose situation was not known to those in charge of it, who did not discover it in time, and could not have discovered it by the use of reasonable diligence, cannot recover though there was negligence on the part of the employees of the railroad in detaching cars and allowing them to run down the switch by their own momentum, and in running an engine backwards in the night and not having a light upon the tender and a lookout, his own negligence being the proximate cause of death.[6]

[1] Denman v. St. Paul & D. R. Co. 26 Minn. 357.

[2] Southwestern R. Co. v. Hankerson, 61 Ga. 114; O'Keefe v. Chicago, R. I. & P. R. Co. 32 Iowa, 467.

[3] Southwestern R. Co. v. Hankerson, 61 Ga. 114.

[4] Illinois C. R. Co. v. Hutchinson, 47 Ill. 408; Price v. Philadelphia, W. & B. R. Co. 84 Md. 506, 36 L. R. A. 213.

[5] Smith v. Norfolk & S. R. Co. 114 N. C. 728, 25 L. R. A. 287.

[6] Little Rock & Ft. S. R. Co. v. Pankhurst, 36 Ark. 371.

The fact, however, that the plaintiff in an action for damages from falling into an excavation has indulged in intoxicating liquor so that his breath smells of it does not show intoxication to such a degree as to disqualify him from the exercise of ordinary care, and constitute contributory negligence upon his part.[1] And the fact that a person injured on a defective sidewalk was going home from his work at the time with a fellow workman who during four or five hours before had drank three or four glasses of ale is not proof of want of reasonable care on his part which will bar a recovery.[2] And evidence in an action for an injury caused by a collision, that the witness had seen the engineer occasionally drink a glass of beer, and that he thought he had seen him drink one on the night of the accident, does not tend to show the engineer's intoxication.[3] Nor does the fact that a person injured from a defective sidewalk was just returning from a saloon where he drank one glass of beer and got his dinner bucket filled with ale for his sick wife constitute contributory negligence which will bar a recovery for the injury;[4] though where a sidewalk upon which an accident happened is found to have been in such a condition that a person using ordinary care and prudence could walk over it without danger of falling, evidence that the person injured was intoxicated at the time is sufficient to warrant a finding that his negligence and intoxication contributed to his injury.[5]

Whether drunkenness of a person injured in any way contributed to his injury is a question of fact for the jury to determine;[6] and so is the question whether remaining in an employment after

[1] O'Hagan v. Dillon, 10 Jones & S. 458.

[2] Aurora v. Hillman, 90 Ill. 61.

[3] Northern P. R. Co. v. Craft, 69 Fed. Rep. 124.

[4] Aurora v. Hillman, 90 Ill. 61.

[5] McCracken v. Markesan, 76 Wis. 499.

[6] Healey v. New York, 6 Thomp. & C. 92, 3 Hun, 708; Newton v. Central Vermont R. Co. 80 Hun, 491; Ditchett v. Spuyten Duyvil & P. M. R. Co. 5 Hun, 165; Houston & T. C. R. Co. v. Sympkins, 54 Tex. 615, 38 Am. Rep. 632; Thorp v. Brookfield, 36 Conn. 321; Alger v. Lowell, 3 Allen, 402; Cramer v. Burlington, 42 Iowa, 315; Stuart v. Machias Port, 48 Me. 477; O'Hagan v. Dillon, 10 Jones & S. 456; Burns v. Elba, 32 Wis. 605; Baltimore & O. R. Co. v. Boteler, 38 Md. 568; Tompkins v. Oswego, 40 N. Y. S. R. 4.

discovering a coemployee's habitual drunkenness constitutes contributory negligence;[2] and so is the question of knowledge by an employer of the intemperate habits of an employee, from which an injury resulted.[6]

So, the question whether a railway engineer in the exercise of due diligence might have discovered a person drunk and helpless across a rail in front of his train, and whether by prompt and strenuous efforts he could have saved his life without putting his passengers in jeopardy, is one for the jury;[3] and the jury should consider the nature of the drunkenness, in determining whether or not it is sufficient to rebut the presumptions arising from the love of life and the natural instinct of self-preservation possessed by all persons.[4] And where the evidence of negligence is nearly balanced, the fact of drunkenness of one of the parties might turn the scale.[5] But refusal to instruct the jury on the submission of the question whether the plaintiff was so intoxicated when injured as to be incapable of exercising ordinary care to avoid injury, for a special verdict as to the legal effect of such intoxication, is not error, as it is for the court to say what is the legal effect, though the jury answer the question affirmatively.[6]

XIII. Proof of intoxication.

§ 1. *Presumptions and burden of proof.*

The general presumption of capacity, and the rule that the burden of proof of incapacity rests with him who alleges it, would appear to apply to alcoholism as well as to insanity, and insanity will not be presumed to have arisen from any particular cause; and where the prosecution in a trial for homicide asserts that the accused was guilty though insane, because his insanity was drunken madness, the allegation must be proved.[7] So, an instruction in a criminal prosecution, that one who kills another by the use of means appropriate to the end is presumed, drunk or

[1] Laning v. New York C. R. Co. 49 N. Y. 521, 10 Am. Rep. 417.
[2] Michigan C. R. Co. v. Gilbert, 46 Mich. 176.
[3] Deans v. Wilmington & W. R. Co. 107 N. C. 686.
[4] Illinois C. R. Co. v. Cragin, 71 Ill. 177.
[5] Wynn v. Allard, 5 Watts & S. 525.
[6] Schuenke v. Pine River, 84 Wis. 669.
[7] United States v. McGlue, 1 Curt. C. C. 1.

sober, to have intended what he did, is not ground for a new trial, though it is in some respects inaccurate, where the evidence is strongly in favor of the verdict.[1] And where a will is read to a testatrix correctly, and she is of sound mind, the legal presumption is that she understands its contents; but the presumption is only prima facie where she is of great age and addicted to the use of ardent spirits to such an extent as to impair her faculties.[2]

So, drunkenness being ordinarily neither a defense nor an excuse for crime, where it is available to lower the grade of the offense it rests with the prisoner to prove it.[3] And where irresponsible drunkenness is relied upon as a defense in a criminal prosecution, the burden of proving it rests with the accused;[4] and the burden of proof rests with one who relies upon insanity as an excuse for crime, to establish that the insanity was caused by an habitual and long-continued intemperate use of ardent spirits, and not as an immediate result of intoxication.[5] So, the burden rests with the accused in a criminal prosecution, who alleges intoxication, to establish that his reason was dethroned or that he was in such a condition as to be incapable of conceiving any criminal intent;[6] or that he was incapable of doing a wilful, deliberate, and premeditated act.[7] And an instruction as to the burden of proof of intoxication, and as to intoxication as a defense, is justified in a prosecution for homicide by evidence that the accused had been drinking ardent spirits and engaged in a quarrel with the deceased, there being no proof of previous acquaintance between them.[8]

So, the burden of proof of intoxication and consequent want of capacity of a person executing a contract rests with the party alleging it.[9] And the burden of proof of unsoundness of mind

[1] Wise v. State, 34 Ga. 348.

[2] Rutland v. Gleaves, 1 Swan, 198.

[3] Reg. v. Monkhouse, 4 Cox, C. C. 55.

[4] State v. Grear, 29 Minn. 221; Fonville v. State, 91 Ala. 39; State v. Hill, 46 La. Ann. 27.

[5] People v. Bell, 49 Cal. 485.

[6] Com. v. Hart, 2 Brewst. (Pa.) 546.

[7] Honesty v. Com. 81 Va. 283.

[8] Honesty v. Com. 81 Va. 301.

[9] Conant v. Jackson, 16 Vt. 335; Harbison v. Lemon, 3 Blackf. 51, 23 Am. Dec. 376.

of a mortgagor addicted to the habitual use of intoxicating liquors to such an extent as to destroy his reasoning faculties rests with the party seeking to impeach the mortgage and a title acquired by foreclosure proceedings thereunder; and he must affirmatively show that such unsoundness existed at the time of the execution of the mortgage.[1] But the burden rests with a party entering into a settlement with another to prove his competency at the time, where he was subsequently found to be an habitual drunkard and to have been such from a time preceding the date of the settlement.[2]

So, one addicted to intemperance and subject to fits of derangement may make a will if he be *compos mentis* at the time; and it is incumbent on those who assert it to show the existence of insanity or incapacity at the time it was made.[3] An habitual drunkard is presumed to be competent to make a valid will or gift, in the absence of proof to the contrary.[4] And the burden of proof in an action upon an insurance policy, that the insured died from a disease induced or aggravated by intemperance, thus invalidating the policy, rests with the insurance company.[5] And an instruction in an action for damages for alleged negligence, that the burden of proof rests with the defendant to show that the plaintiff's injury resulted from his intoxication and negligence, means negligence superinduced by intoxication, and is not, therefore, misleading.[6] But it has been held that the burden of proof rests with the plaintiff, in an action for a personal injury, to show that he was sober at the time the injury was received;[7] and where it is negligence to be in a particular place in a state of intoxication, and some evidence is introduced tending to show that the person receiving an injury at such place was intoxicated, the burden of proof is cast upon him to show that he was not intoxicated in order to recover therefor.[8] And refusal to instruct the jury in an

[1] Youn v. Lamont, 56 Minn. 216.

[2] Klohs v. Klohs, 61 Pa. 245.

[3] Hebert v. Winn, 24 La. Ann. 385; Andress v. Weller, 3 N. J. Eq. 604; Black v. Ellis, 3 Hill, L. 68; Temple v. Temple, 1 Hen. & M. 476.

[4] Gardner v. Gardner, 22 Wend. 526, 34 Am. Dec. 340. And see Koegel v. Egner, 54 N. J. Eq. 623.

[5] Van Valkenburgh v. American Popular Life Ins. Co. 9 Hun, 583.

[6] Loewer v. Sedalia, 77 Mo. 431.

[7] Hubbard v. Mason City, 60 Iowa, 400.

[8] Cramer v. Burlington, 42 Iowa, 315.

action for an injury received upon a public highway, that if the person injured was so intoxicated as to be incapable of properly conducting himself and his team, no recovery can be had, is not error where the jury was told that if he was thus intoxicated at the time of the injury that of itself would throw the burden of proof upon the plaintiff to show that he exercised ordinary care and prudence, and that his intoxication was prima facie evidence of want of ordinary care.[1] And proof of drunkenness on the part of a servant, so habitual as to be generally known, is sufficient to raise a presumption of knowledge thereof on the part of his master which will render him responsible for injuries thereby caused.[2]

So, drunkenness, being temporary unsoundness of mind, does not draw after it any presumption of continuance;[3] and long-continued inebriety, although resulting in occasional fits of insanity, does not require proof of a lucid interval to give validity to the acts of a drunkard, as is required where insanity is proved.[4] Nor will proof of instances of longer or shorter duration of incapacity from drunkenness disturb the legal presumption of a testator's capacity, or shift the burden of proof of capacity to the proponent of his will;[5] and the person who asserts such drunkenness must affirmatively show that it existed at the very time the will was made.[6] And evidence in an action upon a contract, in which the defense was the incompetency of the party, that he had fixed habits of intemperance for two years before, is not sufficient, in the absence of a proceeding *de lunatico inquirendo*, to shift the burden of proof of competency to the party seeking to support the contract.[7]

So, insanity from intemperance is generally of a temporary kind

[1] Burns v. Elba, 32 Wis. 605.

[2] Sawyer v. Sauer, 10 Kan. 466.

[3] State v. Reddick, 7 Kan. 143; Rather v. State, 25 Tex. App. 624; Wheeler v. Alderson, 3 Hagg. Eccl. Rep. 574.

[4] Gardner v. Gardner, 22 Wend. 526, 34 Am. Dec. 340; Halley v. Webster, 21 Me. 461; Koegel v. Egner, 54 N. J. Eq. 623.

[5] Black v. Ellis, 3 Hill, L. 68; Elkinton v. Brick, 44 N. J. Eq. 154, 1 L. R. A. 161; Andress v. Weller, 3 N. J. Eq. 604; Pierce v. Pierce, 38 Mich. 412; Hart v. Thompson, 15 Ga. 88; Julke v. Adam, 1 Redf. 454.

[6] Elkinton v. Brick, 44 N. J. Eq. 154, 1 L. R. A. 161; Andress v. Weller, 3 N. J. Eq. 604.

[7] Noel v. Karper, 53 Pa. 97.

and followed, not simply by lucid intervals, but by permanent restoration of reason; and to such insanity the presumption of continuance does not apply;[1] and delirium tremens brought on by one's own procurement, and passing away with the removal of its exciting cause, is not presumed to continue.[2] The existence of a paroxysm of the disorder must be established at the very time of the act in question.[3] But where alcoholism has produced a permanent derangement it is presumed to continue; and proof of a lucid interval is necessary to give validity to subsequent acts, the same as in other kinds of insanity.[4] And evidence of a sober interval of a few days or hours only is not sufficient to sustain a contract by one who for nearly four years had had fits of delirium tremens or mania a potu, and was in the habit of daily drunkenness, and was foolish and crazy when drinking.[5]

§ 2. *Measure of proof.*

Proof of drunkenness set up to excuse or mitigate crime should be deliberately scrutinized,[6] and should be made by a fair preponderance of the evidence[7] to the satisfaction of the jury;[8] and delirium tremens, or mania a potu, which is the secondary effect of intemperance and a species of insanity, must be established to the satisfaction of the jury.[9] The state is not bound to make proof of a negative by showing beyond a reasonable doubt that the defendant's intoxication was of a degree not to interfere with his judgment and intelligence, or preclude the possibility of his entertaining malice;[10] and a reasonable doubt of rationality or

[1] Duffield v. Robeson, 2 Harr. (Del.) 375. And see Re Lee, 46 N. J. Eq. 193; State v. Towe, 93 Mo. 547.

[2] State v. Potts, 100 N. C. 457; State v. Sewell, 3 Jones, L. 245.

[3] State v. Sewell, 3 Jones, L. 245; Goodwin v. State, 96 Ind. 550.

[4] Gardner v. Gardner, 22 Wend. 526, 34 Am. Dec. 340; State v. Potts, 100 N. C. 457; Cochran's Will, 1 T. B. Mon. 264, 15 Am. Dec. 116.

[5] Menkins v. Lightner, 18 Ill. 282.

[6] Jones v. Com. 30 Pittsb. L. J. 423.

[7] State v. Grear, 29 Minn. 221; Jones v. Com. 30 Pittsb. L. J. 423; Fonville v. State, 91 Ala. 39.

[8] Fonville v. State, 91 Ala. 39; State v. Hill, 46 La. Ann. 27; Com. v. Hart, 2 Brewst. (Pa.) 546; State v. Bowen, Houst. Crim. Rep. (Del.) 91.

[9] State v. Thomas, Houst. Crim. Rep. (Del.) 511; State v. Hurley, Houst. Crim. Rep. (Del.) 28.

State v. Hill, 46 La. Ann. 27.

sanity raised by the evidence does not justify an acquittal.[1] And an instruction upon a prosecution for murder, that the burden rests with the defendant to prove the defense of insanity by a preponderance of evidence, is not prejudicial error where the defendant admits the murder and claims as a sole defense that he inherited an impaired mentality from an insane mother, which has been further weakened by the use of liquor, so as to incapacitate him for entertaining the intent necessary to constitute murder in the first degree, where the jury have also been instructed to give him the benefit of every reasonable doubt as to all other matters.[2]

The doctrine that the jury must be satisfied beyond a reasonable doubt that the accused was in such a state of mind as to be able to form a malicious or premeditated intent, and to be responsible for the act charged, however, has been held applicable to incapacity from drunkenness as well as from insanity.[3]

So, clear and satisfactory proof that a party was in such a state of drunkenness as not to know what he was doing is necessary to avoid an express contract upon the ground of intoxication,[4] and that a person suffering a personal injury was sober at the time must be shown by a preponderance of the testimony;[5] and so must the fact that an injury was caused in whole or in part by the negligence of a drunken employee improperly retained in the service.[6] And where it is negligence to be in a particular place in a state of intoxication, and there is evidence tending to show that at the time of receiving an injury at such place the person injured was intoxicated, he must show by a preponderance of evidence that he was not intoxicated, in order to recover therefor.[7]

§ 3. *Proof of the fact of intoxication.*

Where malice is an ingredient of a charge, whether civil or criminal, simple intoxication may be given in evidence to rebut

[1] Fonville v. State, 91 Ala. 39.

[2] People v. Eubanks, 86 Cal. 295.

[3] State v. Fiske, 63 Conn. 388; Smith v. State, 4 Neb. 277; State v. Cross, 42 W. Va. 253.

[4] Johns v. Fritchey, 39 Md. 259. And see White v. Davis, 42 N. Y. S. R. 901.

[5] Hubbard v. Mason City, 60 Iowa, 400.

[6] Crew v. St. Louis, K. & N. W. R. Co. 20 Fed. Rep. 87.

[7] Cramer v. Burlington, 42 Iowa, 315.

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it,[1] and the fact that a person drank a large quantity of liquor is admissible to establish the fact of drunkenness,[2] and the quality of the spirits taken is to be considered.[3] And evidence on a trial for drunkenness by the voluntary use of intoxicating liquor, that the defendant was found in the streets behaving in a drunken manner, and that his breath smelled of liquor, and that he had been convicted of that offense twice before within a year upon his plea of guilty, is rightly submitted to the jury to determine whether the drunkenness was voluntary or not.[4] But evidence in a prosecution for murder, that the accused had liquor in his house at the time of the commission of the offense, and might have drank it, is not sufficient to show that he was intoxicated at the time, and is therefore inadmissible.[5] And it is not competent to prove the intoxication of a person by showing the condition of one who was with him and who had taken the same number of drinks.[6] Nor is it error to reject evidence that a person accused of homicide was generally drunk when out of work, and that he moved more quickly when drunk than when sober, and that he moved more quickly on the occasion of the killing, and as to the effect of liquor on his constitution and brain, where there is no proof of actual intoxication or that he was out of work at the time.[7] And evidence in a prosecution for horse stealing, that the accused when engaged in a horse trade was in the habit of drinking, and that when under the influence of liquor he was in the habit of telling inconsistent and false stories as to the manner in which he obtained his horses, is inadmissible.[8] Nor is evidence in a trial for murder, in which it is claimed that the accused was rendered insane by drinking whisky furnished him, of experiments that had been made with ordinary whisky and a liquid claimed to be of the same character as that furnished the accused, admissible in the absence of anything to show that the liquor with which the experiments were made was of the same char-

[1] Dawson v. State, 16 Ind. 428, 79 Am. Dec. 439.
[2] Fleming v. State, 5 Humph. 564.
[3] Reg. v. Monkhouse, 4 Cox, C. C. 55.
[4] Com. v. Hughes, 133 Mass. 496.
[5] Com. v. Cloonen, 151 Pa. 605.
[6] Com. v. Cleary, 135 Pa. 64, 8 L. R. A. 301.
[7] Warren v. Com. 37 Pa. 45.
[8] Whitney v. State, 8 Mo. 165.

acter as that drank by the accused.[1] And evidence in a prosecution for homicide, that the person killed had been intoxicated, boisterous, violent, and quarrelsome during the day on which he was killed, is inadmissible to prove that other wounds upon him, not contributing to his death, had been received prior to the assault wherein he was killed.[2]

So, evidence is admissible in an action upon contract, as to whether or not the defendant was in a state of complete intoxication at the time of making it, and whether he was not wholly unfit for the transaction of any kind of business for that reason;[3] and evidence of the intoxication of a party to a contract, and that the other party had caused it and imposed upon him in that situation, is admissible and constitutes a good defense.[4] But evidence of the habit of the maker of a note to gamble when drunk is not admissible to show that the note was given for money lost at play.[5] So, evidence in an action upon a life insurance policy conditioned against liability if the assured becomes so intemperate as to seriously or permanently impair his health, as to the quantity of liquor he drank and that it was sufficient to seriously impair one's health, is irrelevant and inadmissible in the absence of proof that it had affected his health, as the effect which it might have upon the health of different people might be different.[6]

So, intoxication in any degree of a person injured is proper to be considered in an action for damages for the injury, in determining the question of his contributory negligence.[7] And the condition of a driver, drunk or sober, at the time of an accident, is a proper subject of investigation in an action for injuries claimed to have been received by reason of his reckless driving, as a part of the *res gestæ*.[8] And evidence of the intoxication of an engineer by whose engine a man was killed is admissible in an action for such killing, though not specifically alleged, as a cir-

[1] Com. v. Slack, 90 Mich. 448.
[2] Patterson v. State, 66 Ind. 185.
[3] Burroughs v. Richman, 13 N. J. L. 233, 23 Am. Dec. 717.
[4] Curtis v. Hall, 4 N. J. L. 361. But see Noel v. Karper, 53 Pa. 97.
[5] Thompson v. Bowie, 71 U. S. 4 Wall. 463, 18 L. ed. 423.
[6] Odd Fellows Mut. L. Ins. Co. v. Rohkopp, 94 Pa. 59.
[7] Fitzgerald v. Weston, 52 Wis. 354; Illinois C. R. Co. v. Cragin, 71 Ill. 177.
[8] Williams v. Edmunds, 75 Mich. 92.

cumstance to be considered with the other evidence tending to prove the charge of negligence.[1] So, the intoxication of the defendant is admissible in an action of trespass against him for an injury caused by driving his horse and sleigh against the plaintiff;[2] and evidence in an action of trespass for an assault and battery, as to whether the plaintiff was drunk or sober, is material where there is evidence on the part of the defendant tending to show that she was intoxicated, with a probable view of weakening the effect of her evidence as to conduct at and preceding the assault.[3] But the intoxication of a person committing an assault upon another is not a mitigating circumstance to be taken into consideration in determining the amount of exemplary damages to which the party assaulted is entitled, where it was not such as to deprive him of his reason and render him irresponsible for his acts.[4] So, intoxication at the time of uttering slanderous words is not a matter of mitigation in an action therefor;[5] and evidence that the defendant was intoxicated has been held to be inadmissible.[6] But, on the other hand, it has been held that it may be considered in determining the amount of the verdict.[7] So, the drunkenness of the sheriff is no legal defense for making an illegal arrest, but may, in the discretion of the jury, be regarded as an aggravation of the offense;[8] and evidence that a party to an action for damages endeavored to secure impecunious parties upon a bond for his appearance at court bears so remotely upon the question of his intoxication that a judgment would not be reversed on account of its exclusion.[9]

§ 4. *General character and habits.*

As a general rule the general character and habits of a person

[1] Northwestern R. Co. v. Craft, 69 Fed. Rep. 124.
[2] Wynn v. Allard, 5 Watts & S. 524.
[3] Dimick v. Downs, 82 Ill. 570.
[4] Schmidt v. Pfeil, 24 Wis. 452.
[5] Mix v. McCoy, 22 Mo. App. 488; Reed v. Harper, 25 Iowa, 87.
[6] Mix v. McCoy, 22 Mo. App. 488.
[7] Reed v. Harper, 25 Iowa, 87.
[8] Hall v. O'Malley, 49 Tex. 70.
[9] Hubbard v. Mason City, 60 Iowa, 400.

are inadmissible on the question of his intoxication.[1] Thus, evidence in an action for injuries claimed to be the result of reckless driving, as to the general character for sobriety of the driver, is not admissible;[2] nor is evidence that the plaintiff in an action for damages sustained by being run over by a horse car was in the habit of becoming intoxicated;[3] nor is proof that the plaintiff in an action for damages for injury sustained by reason of a defective sidewalk had been in the habit of drinking intoxicating liquors before the injury;[4] nor is evidence of habitual intoxication admissible to reduce damages for a personal injury.[5] And evidence in an action upon a joint and several bond, that one of the obligors had great influence over another, and that he directed his distiller to let him have as much whisky as he wanted, and that he could lead him like a child, is not admissible as tending to show that he was in such a state of mind at the time of signing the bond as to deprive him of power to contract.[6] Evidence in a prosecution for forgery, however, tending to show that in consequence of protracted intemperance the mental faculties of the accused had been impaired to such an extent that intoxication deprived him of the capacity to distinguish between right and wrong, and that he did not know what he was doing, is admissible on the question of intent.[7] And the admission of evidence showing that the disposition of a person accused of homicide was extremely quarrelsome while he was drinking, to enable the jury to compare his acts at various times, is not a ground for reversal.[8]

So, the plaintiff in an action for personal injury, who has testified that he was not drunk at the time and had not been drinking, may be asked on cross-examination if he was not in the habit of

[1] Brindle v. M'Ilvaine, 10 Serg. & R. 282; Fahnestock v. State, 23 Ind. 231.

[2] Williams v. Edmunds, 75 Mich. 92; Robinson v. Fitchburg & W. R. Co. 7 Gray, 92. And see Gahagan v. Boston & L. R. Co. 1 Allen, 189, 79 Am. Dec. 724.

[3] Barker v. Savage, 1 Sweeny, 288.

[4] Hubbard v. Mason City, 60 Iowa, 400.

[5] Baltimore & O. R. Co. v. Boteler, 38 Md. 568.

[6] Jenners v. Howard, 6 Blackf. 240.

[7] People v. Blake, 65 Cal. 275.

[8] State v. Duestrow, 137 Mo. 44.

getting drunk;[1] and evidence is admissible in an action for slander, that at the time of the speaking of the alleged slanderous words the defendant's mind was so excited by a long course of dissipation, and his character so depraved, that no one who knew him would pay any attention to what he might utter, or give any credence whatever to any slanderous charge he might make.[2] And evidence of the general reputation of a railway employee is competent in an action against the company for a personal injury caused by him while intoxicated, to show that the company, if it had used due care, must have known that he was habitually intemperate and therefore an unsuitable servant to be employed,[3] and to show the incompetency of the servant,[4] and evidence in such a case, after proof of negligence, that the employee was intoxicated at the time and was a man of intemperate habits, which was known to the agent of the company having power to discharge such employees, is admissible on the question of exemplary damages upon the ground of gross negligence;[5] though it has been held that evidence in an action for a collision with a railway train, that the flagman had been intoxicated on several occasions previous to the injury, and that his intemperate habits were known to the officers of the company, is inadmissible, as his previous habits had nothing to do with the case.[6] So, evidence that an insured person was in the habit of getting intoxicated for three or four days after each payday, and that upon such occasions he came home and behaved uproariously and abused his family, is admissible as tending to show habits of intemperance within the meaning of a warranty that he was a person of temperate habits.[7] But evidence that the habits of intemperance of the insured were known to the agent who acted for the company in negotiating the contract of insurance is not admissible in answer to the defense of misrepresentations as to such habits, where it was not pleaded in reply to that defense.[8]

[1] McCracken v. Markesan, 76 Wis. 499.
[2] Gates v. Meredith, 7 Ind. 440.
[3] Gilman v. Eastern R. Co. 13 Allen, 433, 90 Am. Dec. 210.
[4] Baltimore & O. R. Co. v. Henthorne, 73 Fed. Rep. 634.
[5] Cleghorn v. New York C. & H. R. R. Co. 56 N. Y. 44, 15 Am. Rep. 375.
[6] Warner v. New York C. R. Co. 44 N. Y. 465.
[7] United Brethren Mut. Aid Soc. v. O'Hara, 120 Pa. 256.
[8] Texas Mut. L. Ins. Co. v. Davidge, 51 Tex. 244.

§ 5. *Previous and subsequent intoxication.*

Evidence of previous intoxication of a person accused of crime is admissible on a prosecution therefor as bearing upon the question of his condition at the time of the act and of his conduct when in that state,[1] provided such testimony makes it probable that the intoxication continued and existed at the time of the offense;[2] and the grossly intoxicated condition of a party immediately before and shortly after a transaction concerning which he testified, with reference to which testimony he is accused of having committed perjury, is admissible as tending to show whether or not it had the effect of rendering him incapable of remembering the facts while on the witness stand.[3] And an instruction as to voluntary drunkenness is not irrelevant where the proof shows that the homicide in question was committed on Sunday, and that the defendant had bought a pint of pure alcohol on the Friday before and drank it, without water, all the next day.[4] But evidence on the issue as to whether the accused was insane or merely drunk, that a few days before the act he had bought a pint of whisky and said he was going to quit drinking, is wholly immaterial and inadmissible.[5] Subsequent conduct of the accused, however, would be of less importance, as the act itself might have caused the excitement;[6] and evidence in a criminal prosecution, that the accused was in the habit of drinking to excess, and of the effect upon his mind produced by such habits, is properly confined within a very short period of the time of the criminal act;[7] and the fact that the accused had on a prior occasion been so drunk that he was deprived of reason, or that when drunk on such occasions his acts were like those of an insane man, does not establish his want of reason and responsibility at the time of the commission of the offense, and is therefore inad-

[1] Upstone v. People, 109 Ill. 169; Reg. v. Monkhouse, 4 Cox, C. C. 55; Pierce v. State, 53 Ga. 365. But see Dawson v. State, 16 Ind. 428, 79 Am. Dec. 439.

[2] Pierce v. State, 53 Ga. 365.

[3] Lytle v. State, 31 Ohio St. 196.

[4] People v. Jones, 63 Cal. 168.

[5] Beck v. State, 76 Ga. 452.

[6] Reg. v. Monkhouse, 4 Cox, C. C. 55.

[7] Real v. People, 42 N. Y. 270; Shufflin v. People, 4 Hun, 16.

missible.[1] And refusal to instruct with reference to insanity or drunkenness is not error where there is no evidence of mental unsoundness, and the only proof of drunkenness is that the accused was drunk on the morning preceding the offense.[2] Nor does evidence of quarrelsomeness while drinking, and that the accused had been drinking on the day previous, require an instruction as to intoxication at the time of a homicide.[3] Nor is evidence that for four or five years the accused had been addicted to excessive drinking, so as to become an habitual drunkard, being drunk more frequently than sober, and being of a quarrelsome disposition when drunk,—admissible for the purpose of showing the state of his mind at the time of the act.[4] Evidence of excessive drinking by the accused during the year preceding the commission of the crime, however, is admissible as tending to explain or account for changes of conduct and peculiarity of manner during that time.[5] And evidence that a party to a settlement and receipt came home intoxicated several hours afterwards is admissible to show intoxication, for the purpose of setting aside such settlement and receipt, where there is evidence tending to show that he was indulging in a protracted carouse.[6]

So, the defendant in an action based upon a note given in settlement of an action for slander brought by him against the plaintiff, alleged to have been given while he was drunk and to have been obtained by threats to arrest him, may prove that he had been drunk for a great part of the time for several weeks, at the plaintiff's house and with his knowledge, for the purpose of showing his mental condition at the time.[7] And evidence of repeated drunkenness of a person who fell into an excavation in a city street, for some years before that time and afterwards, is admissible for the purpose of throwing light on the issue whether or not he was drunk at that time.[8] So, evidence that a ship captain,

[1] State v. Hart, 29 Iowa, 268.
[2] Cavaness v. State, 43 Ark. 331.
[3] People v. Klass, 115 Cal. 567.
[4] Com. v. Werling, 164 Pa. 559.
[5] State v. Murray, 11 Or. 413.
[6] Phelan v. Gardner, 43 Cal. 306.
[7] Foss v. Hildreth, 10 Allen, 76.
[8] Enright v. Atlanta, 78 Ga. 288.

whose ship had gone ashore, and who had sold her to a party who succeeded in getting her off, was addicted to drunkenness within a short time before the vessel sailed, is admissible on an issue between the owner and the insurer as to whether there had been a total loss.[1] And evidence in an action for damages to an employee of a railroad company, alleged to have been caused by the intoxication of a co-employee, as to his having been seen in an intoxicated condition on the day of the accident and at other times is not rendered inadmissible by the fact that there was no allegation with reference to the condition or habits of such employees, but only as to their skill and experience.[2]

§ 6. *Acts, conduct, and declarations.*

The acts, conduct, and declarations of the accused in a criminal prosecution, at and about the time of the criminal act, are admissible in evidence, as bearing upon the question of his insanity, where there is evidence tending to show that his condition was the result of a protracted fit of intoxication, and it is claimed that he committed the offense in a fit of drunken rage.[3] And that the accused talked with his usual intelligence at the time of the commission of the act is competent and material on a prosecution for bribery or attempted bribery of a juror, in which the accused is claimed to have been so under the influence of liquor as not to know what he was doing, as tending to show that he was capable of entertaining the corrupt intent essential to bribery.[4] And menaces, or threats, or revengeful expressions uttered by a person while intoxicated, concerning another whom he afterwards kills, should go to the jury to enable them to determine whether they were merely unmeaning declarations of a drunken man, or whether they indicated actual malice and an intent to do what he threatened.[5] And expressions used by the accused soon after the criminal act are admissible in evidence on the question of intent.[6] But declarations of a testator, that he had never made a will, and that if he had signed one he had been gotten drunk and made

[1] Alcock v. Royal Exchange Assur. Corp. 13 Q. B. 292.
[2] Lyons v. New York C. & H. R. R. Co. 39 Hun, 386.
[3] French v. State, 93 Wis. 325. And see Com. v. Curry, 150 Mass. 509.
[4] White v. State, 103 Ala. 72.
[5] State v. Hurley, Houst. Crim. Rep. (Del.) 28.
[6] Reg. v. Dixon, 11 Cox, C. C. 341.

to do it while in that condition, are inadmissible on an issue of incompetency from intoxication.[1] And what the demeanor of the person killed was when intoxicated is not material in a prosecution for the killing, unless confined to that existing at the time of or immediately preceding the homicide.[2] And declarations and threats against the person killed, made a long time after the killing, at a time when the accused was very drunk, are entitled to no weight where it appears that the subsequent relations between the parties were friendly.[3] And evidence that the plaintiff in an action for breach of promise of marriage drank to excess, and sometimes to intoxication, is inadmissible in mitigation of damages, without specifying under what circumstances the alleged excesses took place, or that her general reputation as to sobriety was bad.[4] So, declarations of an agent of an employer, that an employee who was competent when employed, but who had become incompetent through habits of intoxication, must quit drinking, and that he had heard that he had been off on a spree, are admissible in an action by a coemployee against the employer for an injury caused by the incompetent employee while intoxicated, for the purpose of showing notice or knowledge of the agent of such incompetency.[5] But declarations of a physician who treated an insured person five years before, as to whether he was threatened with delirium tremens, and that he was afraid he was going to have delirium tremens, are inadmissible in an action upon an insurance policy, upon an issue of breach of warranty as to temperate habits.[6]

§ 7. *Admissions and confessions.*

A confession is not rendered inadmissible as evidence in a criminal prosecution by the mere fact that the person making it was drunk at the time; and it is not thereby rendered insufficient to sustain a conviction where the *corpus delicti* was otherwise

[1] Gibson v. Gibson, 24 Mo. 227.
[2] Shufflin v. People, 4 Hun, 16.
[3] Willis v. Com. 32 Gratt, 929.
[4] Button v. McCauley, 38 Barb. 413.
[5] Chapman v. Erie R. Co. 55 N. Y. 579; Laning v. New York C. R. Co. 49 N. Y. 521, 10 Am. Rep. 417.
[6] Northwestern Mut. L. Ins. Co. v. Muskegon Nat. Bank, 122 U. S. 501, 30 L. ed. 1100.

proved,[1] though the drunkenness was induced by a third person for that purpose.[2] His condition at the time should always be permitted to be proved,[3] and his intoxication at the time of the confession affects its weight, but not its admissibility,[4] though if he was so much under the influence of liquor as not to understand what he was confessing the jury should disregard the confession altogether.[5] That degree of intoxication which leaves one capable of making a narrative of past events, or of stating his own participation in a crime, is not sufficient to exclude the confession from the consideration of the jury upon a prosecution for such act.[6] Nor does the fact that a person accused of crime was so intoxicated and excited that he was scattered in his conversation, and no one who heard him could repeat what he said, render his declarations or confessions of guilt inadmissible in evidence against him;[7] and refusal to instruct the jury that if the defendant was so intoxicated at the time he made a confession as not to be able to understand what he was doing or saying, the confession should not be regarded as evidence against him, is not error where the only evidence of intoxication was that he had taken four or five drinks of whisky within six or eight hours before making it.[8] But the submission to the court of the question whether the defendant when making a confession was so intoxicated as not to understand what he was confessing is preliminary to its admission in evidence, and its decision upon the testimony of one witness only, rejecting that of other witnesses, that shortly before and after the confession was made the defendant was intoxicated, is ground for an exception.[9] So, where a confession is shown, and

[1] Williams v. State, 12 Lea, 211; Lester v. State, 32 Ark. 727; Rex v. Spilsbury, 7 Car. & P. 187; State v. Grear, 28 Minn. 426, 41 Am. Rep. 296.

[2] Rex v. Spilsbury, 7 Car. & P. 187.

[3] Lester v. State, 32 Ark. 727.

[4] State v. Grear, 28 Minn. 426, 41 Am. Rep. 296; Com. v. Howe, 9 Gray, 110; White v. State, 32 Tex. Crim. Rep. 625; Rex v. Spilsbury, 7 Car. & P. 187.

[5] Com. v. Howe, 9 Gray, 110.

[6] State v. Grear, 28 Minn. 426, 41 Am. Rep. 296; White v. State, 32 Tex. Crim. Rep. 625.

[7] Eskridge v. State, 25 Ala. 30.

[8] Zwicker v. State, 27 Tex. App. 539.

[9] Com. v. Howe, 9 Gray, 110.

there is evidence tending to prove that the person making it was laboring under delirium tremens, or was otherwise insane at the time, the opinion of an expert may properly be taken as to his mental condition indicated by the proved facts.[1]

§ 8. *Opinions as to intoxication.*

Anyone who has witnessed a person's acts, appearance, and speech may express an opinion, when material to the issue, as to whether or not he was intoxicated,[2] or whether or not he appeared to be drinking,[3] or as to his apparent condition as to sobriety.[4] Whether a person was drunk or sober is a fact patent to the observation of all, requiring no special skill or learning to discern it, and may be testified to by anyone knowing the facts,[5] the belief of the witness, when material to the issue, being admissible from necessity, as a fact based upon his own judgment and observation, and not as an opinion, as the witness can seldom give in detail all the points going to make up his belief.[6] But while it has been held that such evidence is admissible without a statement of the conduct and demeanor of the party inquired about,[7] and without reference to the witness's previous knowledge of the party's habits and conduct,[8] the rule is laid down that the means of judging correctly, possessed by a witness testifying as to the intoxication of another, must be submitted to the jury.[9] And a witness in a criminal prosecution, who was present at the time of the commission of the act, though not an expert, may, after describing the appearance and conduct of the party, give his opinion as to whether or not he was intoxicated,[10] and may be asked whether from the person's conduct and deportment and

[1] State v. Feltes, 51 Iowa, 495.

[2] McKillop v. Duluth Street R. Co. 53 Minn. 532; Parker v. Parker, 52 Ill. App. 335; State v. Huxford, 47 Iowa, 16.

[3] Choice v. State, 31 Ga. 424.

[4] People v. Monteith, 73 Cal. 7.

[5] Dimick v. Downs, 82 Ill. 570; Parker v. Parker, 52 Ill. App. 333; State v. Pike, 49 N. H. 399, 6 Am. Rep. 533; Castner v. Sliker, 33 N. J. L. 95; People, Flood, v. Martin, 15 Misc. 6.

[6] Stacy v. Portland Pub. Co. 68 Me. 279.

[7] State v. Huxford, 47 Iowa, 16.

[8] Castner v. Sliker, 33 N. J. L. 95.

[9] Castner v. Sliker, 33 N. J. L. 95.

[10] Pierce v. State, 53 Ga. 365; Eastwood v. People, 3 Park. Crim. Rep. 25.

other facts connected with them, in his opinion, he was to any considerable extent under the influence of intoxicating liquors,[1] or whether he talked with his usual intelligence at the time,[2] or whether from what he saw and heard at the time he was, in his opinion, rational or irrational, the question simply relating to his appearance and conduct, and not to his mental condition.[3] And it is competent to ask a witness who attested the execution of a note, on cross-examination, whether the maker was not in a complete state of intoxication at the time, rendering him wholly unfit for the transaction of any kind of business.[4]

The effect of intoxication upon the capacity of a person to make a will is not a scientific question to be determined by experts, but one within common observation, depending upon the facts of each case, and to be determined from such facts.[5] And a witness in an action upon an insurance policy containing a warranty that the insured was not a person of intemperate habits may be asked whether he had ever seen the insured drunk;[6] and whether an employee of a railroad company was careful, attentive, and temperate is a fact which can be proved by a witness in an action for injuries caused by such employee, in which it is claimed that the company was negligent in employing him, where the witness has seen and observed his conduct, and can testify to the facts which he has observed.[7] The opinions of witnesses in a criminal prosecution in which intoxication is alleged as a defense, however, who had frequently seen the defendant intoxicated, are not admissible on his behalf on the question of his mental condition at the time of the act, where they did not see him on the day of the commission of the crime.[8] And whether at the time of the commission of a criminal act the accused was so intoxicated as to be incapable of forming a design or intent is a conclusion to be drawn by the jury from the facts before them, and

[1] People v. Eastwood, 14 N. Y. 562.
[2] White v. State, 103 Ala. 72.
[3] People v. Packenham, 115 N. Y. 200.
[4] Burroughs v. Richman, 13 N. J. L. 233, 23 Am. Dec. 717.
[5] Pierce v. Pierce, 38 Mich. 412.
[6] United Brethren Mut. Aid Soc. v. O'Hara, 120 Pa. 256.
[7] Gahagan v. Boston & L. R. Co. 1 Allen, 187, 79 Am. Dec. 721.
[8] Nevling v. Com. 98 Pa. 323.

not a question of fact to which a witness can testify.[1] Nor can a witness testify that the accused was so drunk that he did not know what he was doing.[2]

So, refusal to permit an expert witness who had examined the accused two days after the crime, and testified that he was then deranged, and that he thought delirium tremens was the cause of his insanity, to state whether, in his opinion founded on such examination, the same state of mind existed at the time of the act, is not error where the witness was permitted to state how long he thought the accused had been in such a state.[3] Nor can a nonexpert witness in a criminal prosecution in which insanity is interposed as a defense be asked whether the accused could control his appetite for intoxicating liquor;[4] and a question as to whether the accused by reason of his drunkenness knew the witness or anyone else, is objectionable as assuming the fact of drunkenness, and as leading.[5] Nor can the witness be permitted to testify to an impression as to whether or not the accused was intoxicated at the particular time, when it might have been produced by what he heard persons other than the accused say.[6] And a medical expert in a prosecution for murder in the first degree, in which intoxication is set up to show that the accused was incapable of premeditation, cannot give his opinion as to whether or not he was easily affected by intoxicating liquors, where there was no evidence as to how much liquor he had drank, the question for the jury being wholly as to his actual condition, as to which there was direct evidence.[7] So, the opinion of a witness as to the effect of habits of intemperance upon the health of an insured person at the date of the policy, four years later, is inadmissible on the issue of a breach of warranty against intemperate habits.[8] And where a witness states that he had no knowledge

[1] Armor v. State, 63 Ala. 176.
[2] White v. State, 103 Ala. 72.
[3] People v. McCann, 3 Park. Crim. Rep. 272.
[4] Goodwin v. State, 96 Ind. 550.
[5] McCarty v. State, 4 Tex. App. 461.
[6] People v. Wreden, 59 Cal. 392.
[7] State v. Smith, 49 Conn. 376.
[8] Northwestern Mut. L. Ins. Co. v. Muskegon Nat. Bank, 122 U. S. 501, 30 L. ed. 1100.

whether or not a person was intoxicated at a designated time, the exclusion of a question asking his opinion as to such intoxication, which is not confined to the personal appearance or conduct of the party, is not error.[1] And an officer in charge of a person, not being an expert, to whom such person makes a confession, cannot be asked, on an offer to put the confession in evidence, if he was familiar with the effect of liquor upon those who drank it to excess, for the purpose of showing that the person was intoxicated at the time of making the confession.[2] But where a confession is shown, and there is evidence tending to prove that the person making it was laboring under delirium tremens, or was otherwise insane at the time, the opinion of an expert may be properly taken as to his mental condition indicated by the proved facts.[3] And a practising physician may testify to an injury or depression of the skull of a person accused of crime, and as to what effect, in his judgment, the use of intoxicating liquors would have upon him while in such a condition, though he is not shown to have had experience in the treatment or care of insane persons, or to have been connected with an asylum for the insane.[4]

XIV. Intoxication as affecting witnesses.

The rule has been laid down that a person in a state of intoxication should not be sworn as a witness or permitted to testify, as it constitutes a temporary derangement of his mind;[5] and evidence that a witness was drunk at the time of the transaction concerning which he attempts to testify is admissible to discredit him,[6] and as tending to show that his faculties for observation were either entirely gone or greatly impaired.[7] And it is competent for the contestant of a will to show that a physician who had attended the testator, and who gave medical evidence as to his capacity to make a will during the time of his attendance, was under the influence of liquor, and not capable of judging of the tes-

[1] Aurora v. Hillman, 90 Ill. 61.

[2] State v. Swift, 57 Conn. 496.

[3] State v. Feltes, 51 Iowa, 495.

Territory v. Davis (Ariz.) 10 Pac. 359, 6 Lawson, Criminal Defenses, 630.

[4] Hartford v. Palmer, 16 Johns. 143.

[5] Fleming v. State, 5 Humph. 564.

[6] Mace v. Reed, 89 Wis. 440.

tator's mental condition.[1] The general character of a witness for drunkenness, however, is not admissible in evidence to affect his credibility,[2] and a finding that a person was an habitual drunkard furnishes no objection to his competency as a witness;[3] and neither the fact that a witness was discharged from the police force for alleged drunkenness, nor that he was unjustly accused thereof, can legally affect his credibility as such.[4] Intoxication not reaching the degree of stupefaction at the time of the happening of an event concerning which a witness is called upon to testify, though it impairs credibility, does not destroy it; and if the evidence of the intoxicated person is corroborated, or if his memory of the transaction appears to be clear and distinct, he is entitled to belief;[5] and a statute providing that persons who are intoxicated at the time of their production for examination are not competent to testify is intended to exclude persons as witnesses only when intoxicated to a degree which would exclude them at common law.[6]

The question whether an intoxicated witness is competent rests in the sound discretion of the trial court,[7] and it is not error for the court in a criminal prosecution to refuse to administer an oath to a person tendered as a witness, who is so drunk as not to understand its obligation, where it informs the prisoner that he may recall the witness when he becomes sober, and the prisoner closes his case without recalling him.[8] Nor is the exclusion of a witness from the court room and from testifying in a criminal prosecution, because he was intoxicated, reversible error, where it does not appear that any objection was made to the exclusion, or that the court was informed of the importance of his testimony and an adjournment asked until he became competent to testify.[9] But whether a witness is drunk or not, and whether his evidence is

[1] Sisson v. Conger, 1 Thomp. & C. 564.
[2] Brindle v. M'Ilvaine, 10 Serg. & R. 282; Thayer v. Boyle, 30 Me. 475.
[3] Gebhart v. Shindle, 15 Serg. & R. 235.
[4] Barker v. Savage, 1 Sweeny, 288.
[5] State v. Castello, 62 Iowa, 404.
[6] Cannady v. Lynch, 27 Minn. 435.
[7] Gould v. Crawford, 2 Pa. 89.
[8] State v. Underwood, 6 Ired. L. 96.
[9] Fox v. Territory, 2 Wash. Terr. 297.

material or not, are questions of fact for the jury,[1] though the testimony of a person accused of crime, when he was so drunk as to be unconscious and irresponsible, as to what took place while he was in that condition, is of little or no value on a prosecution therefor.[2] And the verdict of a jury should not be interfered with because several of the principal witnesses in the case were intoxicated at the time of the transaction in question, where there was other evidence, including the confessions of the prisoners, to support it.[3] Where a witness testifies that he did not know that certain conversations took place at a specified time and place, which were supposed to relate to the testimony he was expected to give, he may be asked, for the purpose of impeaching him, whether or not he was drunk at the time.[4] But a party cannot stand by and permit a witness to be examined, and cross examine him himself, and permit his evidence to go to the jury, and then, for the first time after a verdict has been rendered, object that he was intoxicated.[5]

[1] State v. McNinch, 12 S. C. 89.
[2] Territory v. Franklin, 2 N. M. 307.
[3] Mercer v. State, 17 Ga. 146.
[4] Strang v. People, 24 Mich. 1.
[5] Dickinson v. Buskie, 59 Wis. 136.

CHAPTER XV.

MORPHINISM AND OTHER ADDICTIONS.

Absinthe drinking concerns the French people more than it does the American or the English, as in France the habit is prevalent, while elsewhere it is hardly heard of. When absinthe, the essence of a plant known as *Artemisia absinthium*, is mixed with alcoholic drinks, it adds its special action to that of alcohol. It produces dizziness, and finally an epilepsy which differs in no way from the ordinary disease of that name. Absinthe intensifies the alcoholic effects, and it is claimed that it anticipates and overshadows them. It acts more swiftly than alcohol, causing greater excitement, frightful hallucinations, especially of sight, and, as French authors, such as Laborde, Motet, Melangée, Magnan and Legrain, affirm, "the drunkenness of absinthe is, moreover, of unprecedented violence and presents the greatest danger."

Darnel seeds as an adulterant of liquors, mentioned as such in the English licensing acts, require notice because they intensify the action of alcoholic drinks, and cause narcosis, vertigo, dizziness, headache, and a species of drunkenness. *Lolium temulentum* is the botanical name of the plant. From ancient times these seeds have been regarded as deleterious to the human system, producing symptoms analogous to intoxication from alcoholic drinks; whence the plant derives its specific name of *temulentum*, and the French name of *ivraie*. The properties, chemical and general, of the seeds, are described in the United States Dispensatory. *Cocculus Indicus* is another article among several delecterious adulterants, suggesting that undue effects of drinking may often be attributed to other things than alcohol.

The cocaine habit and insanity were announced by Erlenmeyer in 1886, a few years after the discovery of the physiological effects of cocaine hydrochlorate by Kollar. Morphine habitués are the chief victims, made such by attempts to substitute the cocaine for morphia in the hope of a cure of the latter addiction, which result in a rapid increase of the dose, and not only, in many cases, a return to morphia in connection with cocaine, but

the addition of chloral and alcoholics, all of which are taken in extraordinary quantities. Sometimes the addiction is acquired innocently, through ignorance of the composition of certain quack catarrh-snuffs, or in the treatment of hay fever. Through the local anæsthesia produced by cocaine, relief from many distressing symptoms is temporarily secured, but the terrible effects of the drug soon become manifest in the formation of an irresistible craving which increased quantities fail to allay. Severe symptoms sooner or later appear in delusions of persecution, acute mania, and dangerous impulses. In some cases hallucinations of sight and hearing, mental confusion, loss of memory, and mental weakness, are the chief effects. Talkativeness, confused letter writing, abusiveness, noisy irritability, and unreasonableness generally, are frequent symptoms. Temporary mania has been occasioned by small quantities used to assist surgical operations. Several victims of the habit, in my experience, were physicians, one of whom for two years was frenzied, aggressive, treacherous, vindictive, suicidal, and homicidal; most troublesome when his attempts to secure the poison were interfered with. After becoming notorious in both Chicago and New York he recovered under treatment, and is apparently as well as before. Another physician became ataxic in his legs during the habit, and experienced but little discomfort aside from the general numbness. He also recovered. A surgeon used thirty grains daily for a severe pharyngeal catarrh from which he suffered, and became so intolerable that his wife and daughter fled from his unjust, insane abuse. His boisterousness and quarrelsomeness were erroneously ascribed to whisky. Collapse is apt to follow the sudden withdrawal of cocaine, but the habit appears to be more readily cured than either the liquor or the opium addiction.

The opium or morphine habit entails its own punishment. The offenses against others committed by the opium eater are few in number and in kind, and, except as a degraded individual occasionally in police courts, probably for some petty theft, he is of but little consequence where criminal law is concerned. Testamentary capacity and the ability to transact business are occasionally affected, but not conspicuously unless the addiction has produced recognizable insanity. Three fourths of those afflicted with the habit claim that physicians prescribed the drug for them

initially. Often patients resort to refilled prescriptions without the knowledge of the physician. Women acquire the habit usually in this way, and equal the males in number. Physicians themselves afford about 15 per cent of the sufferers; usually country doctors whose irregular life has led up to the habit, which has often been instituted in attempts to cure the whisky habit. Though in a few cases it has been used for forty years, few survive the fifteenth year of opium using. Most opium users are in bad health, either from a time before the drug was taken, or as a result of its use. Ten per cent at least of the unfortunates finally become insane. When the habit is fairly instituted, deprivation of the drug causes intense suffering, and may result in heart paralysis or a temporarily maniacal condition.

De Quincey's book, "Confessions of an English Opium Eater," has lured many into the habit, and they have found when too late that the author has underestimated the dangers and overstated the pleasures experienced. All reliable authors on the subject, including Wm. Rosser Cobbe,[1] state that mendacity is a marked feature of the opium habit. The value of testimony is affected by this fact. Opium or morphine users become hypersensitive, suspicious, cowardly; they fancy insults where none were intended; they have delusions of persecution and of conspiracy; their dispositions are fickle and unreliable; they alternately boast and exhibit humility. Indecision is observable, and, as De Quincey said in relation to Coleridge, "opium eaters never complete any work." They seek solitude, avoid their friends, and usually hang their heads to avoid direct gaze, as the pupils of their eyes are contracted to "pin-hole" size, and indicate the use of opium.

At times they are loquacious, their thoughts are rapid to tumultuousness and inco-ordination, so that literary work is difficult or impossible. The senses of sight, hearing, taste, smell, and touch are impaired, objects are distorted and appear double, things "taste alike," odors which escaped notice before become intolerable, there are auditory hallucinations usually of a distressing character such as abusive voices. Sleep is disturbed by horrible dreams, if it is not at times banished altogether. The drug

[1] Dr. Judas; a Portrayal of the Opium Habit, 1895.

loses its hypnotic power and acts erratically so far as causing sleep is concerned. Memory gaps and trance states similar to those caused by alcohol occur, in which routine but complicated acts are performed, with no subsequent recollection of what was done. And these memory lacunæ are independent of the quantity of morphine or opium used, and without regard to any particular time.

Opium smoking is the most degraded state of addiction, and Cobbe states that police estimates grant about two years for the opium smoker's life. Opium joints where the smoking is done are sneak-thief dens. Petty larceny is concocted there, and the victims of the smoking habit are induced to steal, and are then robbed in turn. It is a mistake that these dens are used for otherwise immoral purposes. Opium destroys the sexual life, and the frequenters of smoking joints are far advanced in degradation as a rule. The filthiness of the places is far from alluring to novices. Impotence is the rule among opium eaters, the women are usually sterile, and their menses cease. The bowels are costive, with occasional severe diarrhœas; the skin becomes parchment like and yellow.

There is no pathological anatomy accredited to morphine or opium eating. That is, whatever conditions have been found, in the way of disease existing after death, appear to be due to other or secondary causes, rather than directly to the use of the drug.

In judicial proceedings concerning wills, sales, purchases, etc., the mere matter of opium or morphine addiction is of no consequence except so far as it has affected the mind. The habitué has been known to forge prescriptions and to pilfer, and he might do worse for the sake of obtaining the poison. Life insurance considerations are occasionally involved.

In *Rogers* v. *State*,[1] on a trial for larceny, it appeared from the evidence that the prisoner was addicted to the habitual and excessive use of opium in some of its forms, and there was evidence from which it might be inferred that at the time of the larceny he had been deprived of his accustomed supply of the drug. He sought to show the effect of such deprivation upon his mental condition, but the trial judge refused to allow him to do so. On

[1] 33 Ind. 543 (1870).

appeal this ruling was reversed. "We think," said the supreme court, "that the evidence was competent as tending to show whether or not he was at the time in a condition mentally such as to be able to commit a larceny."

The opium habit includes the undue use of morphine, codeine, laudanum, paregoric, chlorodyne and McMunn's Elixir.

Claus C. Jensen, said to be a morphine eater, was on trial before Judge Carter of the Chicago County Court, June 6, 1895, for his sanity. The case was the subject of much discussion between the court, Dr. Fortner, the county physician, and the jury, with reference to the propriety of sending patients of this character to an insane asylum for treatment. It was suggested by one of the jurors that it would not take long to fill up the insane asylums if morphine eaters were to be sent to them indiscriminately. Dr. Fortner maintained that an asylum was the proper place for such, and insisted that so long as the morphine was in his system the victim of the habit was irresponsible for his actions.

As Jensen's case was the first one of the kind to come before Judge Carter, he had a number of morphine experts placed upon the stand to ascertain whether a victim of the stimulant was necessarily insane. The physicians all agreed that where the habit was at all strongly formed a morphine eater was insane, and therefore a fit subject for an institution. Jensen was sent to the county insane asylum.

Insanity from opium using may appear at any time during the addiction, frequently during abstinence in attempts to break off the habit, or when, during imprisonment or some sickness, such as pneumonia, the drug has been withheld from one habituated to its consumption. Authors are agreed that many different forms of insanity are caused by using opium. Hammond[1] states that morphine may produce any variety of mental aberration. Regis[2] claims that morphine is capable of provoking mental disorders of various kinds; and the history of recent criminal trials shows that the medico-legal chapter of morphinism has been opened. In a general way the insanity caused by morphinomania resembles in all points all the other toxic insanities, and,

[1] Insanity, 661.

[2] Practical Manual of Mental Medicine, 512.

like them, manifests itself in more or less acute attacks of mania or melancholia, with insomnia, terrifying visual hallucinations, tremors, etc. Bucknill and Tuke[1] mention opium as a cause of insanity, as does Griesinger.[2] Savage[3] believes that the opium crave is stronger than any other. He states that symptoms resembling delirium tremens may be set up by opium eating or the injection of morphia, and mentions the fact that it has been said that a morphia injection will quiet in morphismus, but alcohol will cause excitement. There are present the same tremor, want of appetite, refusal of food, ideas of poison, hallucinations, and tendency to erotic ideas. Chronic morphismus may also be set up, with suspiciousness, auditory hallucinations and feelings of galvanic shocks. Cocainomania is a form of excitement caused by the abuse of cocaine, generally in conjunction with morphia.

Clouston[4] says: "I have seen many cases of insanity resulting from opium eating, and one from the hypodermic use of morphia. They were very like the insanity of chronic alcoholism, but not so suicidal, with greater weakness of the heart's action, and more sleeplessness, sickness, and intolerance of food for the first fortnight. It is precisely the same class of persons who indulge in opium who indulge to excess in alcohol, and the treatment is the same, *viz.*, an immediate stoppage of the drug, with much liquid nourishment, fresh air, and watching. I have seen two cases of insanity brought on by the use of chloral. They, too, were of the same generic type as the alcoholic cases, and demanded the same treatment."

Tuke[5] says: "Chronic morphia poisoning produces mental weakness and therefore belongs to the causes of insanity," and that both using and abstinence from morphia produce insanity, differing in symptoms and prognosis. "The most frequent form produced by intoxication (of morphinism) is monomania (mania marked by delusions as to persecution and mania, with exalted views, together with mental weakness). This form is mostly incurable. . . . A certain number of patients become insane,

[1] Psychological Medicine, 430.
[2] Mental Pathology and Therapeutics, 121.
[3] Insanity, 430.
[4] Mental Diseases, 318.
[5] Dictionary of Psychological Medicine, 818.

while others commit suicide. At the Elgin, Illinois, Insane Hospital, there is an interesting case of the above-mentioned paranoia after opium deprivation; he has delusions of persecution, and imagines that everyone, including his sister, steals from him. Spitzka[1] describes a chronic form of opium insanity, and an acute opium delirium analogous to delirium tremens. He also mentions a chronic delusional insanity, and acute mania from opium.

Other injurious drugs sometimes used in conjunction with an opiate are bromides, chloral hydrate, cocaine hydrochlorate, atropia, sulphuric ether, chloroform, Hoffman's Anodyne, Cannabis Indica, or hasheesh, alcohol in various forms, as in tinctures of ginger, cinchona, or valerian. Some of the above-named drugs, such as chloral, chloroform, ether, etc., are used alone, and eventually deprave both mind and body. Cigarettes have sometimes been found to contain opium, stramonium, belladonna, and Indian hemp; and their use appears to create a craving for alcoholic liquor.

[1] Manual of Insanity, 254.

CHAPTER XVI.

LEGAL ADJUDICATIONS AS TO MORPHINISM AND OTHER ADDICTIONS.

The fact that a person committing a homicide was in a frenzy produced by an overdose of morphine administered to him as a medicine is a complete defense on a prosecution therefor; and refusal to instruct the jury that if the prisoner was in a state of mind that rendered him incapable of comprehending the criminal character of his act, and his incapacity was due to an overdose of a drug he had taken, he should be acquitted, is error, though the court does instruct that insanity is a complete defense to all criminal acts committed under its influence, whether permanent or temporary, and from whatever cause produced.[1] But refusal to give an instruction in a prosecution for murder, in which it is claimed that the accused was insane from the use of morphine, referring to morphine as a cause for such supposed insanity, is not error where ample instructions with regard to insanity and diseases of the mind are given, though without mentioning any specific drug or liquor as the cause.[2] And evidence on a trial for larceny, in which it appears that the accused was addicted to the habitual and excessive use of opium in some of its forms, and that at the time of the alleged commission of the act he had been deprived of his accustomed supply, as to what effect such deprivation would have upon his mental condition, is admissible as tending to show whether or not he was in such a condition mentally as to be able to commit larceny.[3] So, it is proper that a full inquiry should be made as to the effect which the habitual use of morphine had produced upon the mind of a testator, in a will contest in which mental incapacity is alleged, and the cost of such inquiry is properly chargeable against the estate,[4] mental incapacity from the use of morphine at the time of making a will being sufficient to invalidate it.[5] And a finding

[1] State v. Rippy, 104 N. C. 752.
[2] State v. Mahn, 25 Kan. 182.
[3] Rogers v. State, 33 Ind. 543.
[4] Ayres v. Ayres, 43 N. J. Eq. 65.
[5] Stedham v. Stedham, 32 Ala. 25.

of a jury setting aside upon the ground of mental incapacity a will in which the testator disinherited a daughter because of her desire to marry a man whom he did not like, at a time when he was a bedridden invalid, subsisting mostly upon whisky and morphine, not taking the latter in quantities sufficient to affect him mentally, but being drowsy, will not be disturbed on appeal, though a majority of the witnesses testified that he was competent.[1] But proof that during a protracted illness of a testator, opium in moderate doses was administered under direction of his attending physician, to alleviate pain, will not invalidate his will made during such illness, in the absence of proof that the drug affected his mental powers further than to cause sleepiness, and it does not appear that he was at all affected by it at the time.[2] Nor will evidence of oddities and apparent weakness of mind upon the part of a testator invalidate his will, where he was addicted to the use of morphine, and such oddities and apparent weakness were probably due to that, and it appears from his conduct at the time of the execution of the will that he fully understood what he was doing and possessed sufficient memory and understanding to dispose of his property.[3] And the same rule applies to instances of delusion in seeing objects having no actual existence, where it appears that the morphine was used in moderate quantities for relief from excessive pain, and that the delusions probably resulted from such use.[4] And the fact that the ordinary effect of morphine is to weaken the power of the will is immaterial in an action to set aside a will on the ground of undue influence, where the evidence shows that there was in fact no weakening of the will power and no effort to control the testator.[5] So, evidence that a testator's mind was greatly impaired by the use of opium and ardent spirits, and that in consequence thereof he was frequently incapable of transacting business, is not sufficient to repel the presumption of sanity arising from the fact that he wrote his will himself, where it does not appear that he was incapable of transacting business at the very

[1] Carlin v. Baird, 11 Ky. L. Rep. 932.
[2] Re Glockner, 17 N. Y. S. R. 798.
[3] Frost v. Wheeler, 43 N. J. Eq. 573.
[4] Miller v. Oestrich, 157 Pa. 264.
[5] Bush v. Lisle, 89 Ky. 393.

time the will was executed.[1] But the legal presumption that a testator of sound mind to whom his will had been read, correctly understood its contents is only prima facie, where he was of great age and addicted to the use of opiates and ardent spirits to such an extent as to impair his faculties.[2] And the will of a testator who was addicted to the continued and excessive use of cocaine, and who was under its influence at the time of its execution, and who labored under the hallucination that persons were pursuing him and intended to do him bodily harm, and that his friends intended to incarcerate him in an asylum, and that he had bacteria present in his body which were constantly creeping through his skin,—is invalid on the ground of unsoundness of mind, though but for the hallucinations and delusions he would talk rationally at times, and his mind would seem to be clear.[3] So, an opium consumer is not incompetent as a witness, though the testimony of such a person is unreliable and the jury should be carefully cautioned as to believing it.[4] And proof that a witness was in the habit of using laudanum is not sufficient to discredit or weaken his testimony unless it is also established, either that his mind was impaired generally thereby, or that he was under the influence of the opiate at the time the testimony was given.[5] So, a daily or frequent use of opium is an habitual use within the meaning of a warranty against such use in an insurance policy.[6] But one who drank to intoxication, and while in that condition, by accident or mistake, took an overdose of laudanum and died therefrom, did not die by his own hand within the meaning of a condition against such death in an insurance policy, though the mistake or accident was caused to some extent by the drunkenness; but if he took the laudanum with intent to destroy life, it would be within the condition, though it was but the intent of a drunken man.[7]

The voluntary use of chloroform habitually indulged in, and

[1] Temple v. Temple, 1 Hen. & M. 476.
[2] Rutland v. Gleaves, 1 Swan, 198.
[3] Re Underhill, 21 Ohio L. J. 279.
[4] State v. White, 10 Wash. 611.
[5] McDowell v. Preston, 26 Ga. 528.
[6] Ætna L. Ins. Co. v. Davey, 123 U. S. 739, 31 L. ed. 315.
[7] Equitable Life Assur. Soc. v. Paterson, 41 Ga. 338, 5 Am. Rep. 535.

habitual intoxication therefrom, do not make a person a common drunkard, however, and expose him to the penalties prescribed by law therefor or for disorderly conduct;[1] and the habitual use of opiates, though tending to undermine and destroy all the objects of the marital relations, and though operating substantially like the use of intoxicating liquors, does not constitute drunkenness within provisions authorizing a divorce on that ground;[2] and that a wife has become a confirmed opium eater to the neglect of her domestic duties does not establish cruelty as a ground for divorce, which must consist of personal violence or a reasonable apprehension thereof.[3] Medical experts and other witnesses who have long associated with the defendant, in an action for divorce on the ground of confirmed drunkenness from the excessive use of opium or other drugs, may give opinions as to whether on occasions when they saw her she was under the influence of morphine.[4] Under the Massachusetts statute, however, gross and confirmed drunkenness caused by the voluntary and excessive use of opium or other drugs is made a ground for divorce in express terms.[5]

[1] Com. v. Whitney, 11 Cush. 477.

[2] Dawson v. Dawson, 23 Mo. App. 169; Barber v. Barber, 14 Law Rep. 375; Youngs v. Youngs, 130 Ill. 230, 6 L. R. A. 548.

[3] Holland v. Holland, 4 Leg. Gaz. 372.

[4] Burt v. Burt, 168 Mass. 204.

[5] Burt v. Burt, 168 Mass. 204.

CHAPTER XVII.

HEAD INJURIES.

Blows or falls upon the head are common in youth and among certain classes; and the number of those who escape any noticeable after effects of head injuries must be very large, but there is sound advice in the words of Hippocrates, of twenty-four centuries ago, that no injury to the head is so trifling as to be despised.

Compression, concussion, contusion, and fracture are the usual divisions of head injuries affecting the brain.

Unconsciousness, as a rule, results immediately after a serious blow or fall upon the head; but neither the preservation of consciousness nor its loss at the time of a head injury, is indicative of the severity of the brain disturbance or of the probable results. An apparently dangerous head wound or shock may leave no trace, while what may be regarded at first as an insignificant injury gradually or suddenly destroys the mind and health completely. Sometimes slight confusion, dizziness, and faintness may occur, with a tendency to prolonged sleep, from which the patient is often improperly aroused by those who confuse the danger of yielding to narcotics with the recuperative drowsiness that succeeds head injuries. The insensibility may be attended with cold, pale skin, imperfect breathing, feeble pulse, and abolished reflexes; and some such evidence of shock may be noted even when sensibility is not lost. Nausea or vomiting may occur soon after the injury or days and weeks afterward. Blood may be vomited, though this does not indicate that the concussion is more severe than in cases in which it does not happen. The vomiting or nausea may last, with intermissions, for hours or days. Fever may accompany the reaction during one or two weeks; and cerebral irritation may develop, in which there is restlessness and semi-consciousness, the knees are drawn up to the abdomen, the eyes are closed, the pupils contracted, the body pale and cold, and the pulse slow.

A contusion of the brain may be situated beneath the part of the skull injured, or in some remoter part of the brain as a result

of contrecoup. Contusion symptoms are complicated with those of compression and concussion, and vary, according to the part of the brain injured, from paralytic states or spasms to sensory impairment and even loss of intellect or life.

Compression of the brain may occur from the pressure of fractured bones, extravasated blood, or the presence of pus or a foreign body. Stupidity, with loss of recollection of what happened after the compression began, until its relief, is noticeable in some cases, while total unconsciousness is most frequent. The pulse and breathing are labored and slow, the coldness of the body which first occurs gives way to heat and perspiration, the pupils are dilated or unequal, the feces pass involuntarily, and there is retention of urine. Delirium may alternate with this and with spasms or paralyses.

Fractures of the skull often include concussion, compression, and contusion, all of which are so commonly consigned to surgical care that books on surgery contain the best descriptions of the immediate results of every kind of head injury. A recent work by F. S. Dennis[1] is unusually elaborate in this respect.

Fracture of the base of the skull, which Phelps[2] asserts occurs in 60 per cent of all severe injuries of the head, is a frequent, fatal form, the cerebro-spinal fluid sometimes escaping by way of the ear, and, micro-organisms being afforded entrance to the brain, septic complications add to the dangers.

Probing the brain should be done with great caution and with reference to the nature of the tissues searched, as it is only too easy to destroy important brain centers or blood-vessels which the looked-for missile may not have injured. A case of probing of the brain is recalled in which after death the bullet was found lodged immediately above the eye, in the frontal sinus portion of the skull. Surgeons who have studied the microscopic anatomy of the brain are careful to avoid damaging cell groups or vessels by probes and aspirators, as well as to bear in mind the risk of septic infection by instruments.

According to the resisting powers of the individual and the immediate or later developed consequences of head injuries, recovery or death may occur at any stage, or insanity may appear.

[1] System of Surgery, II., 547 *et seq.*

[2] New York Medical Journal, January 14, 1893.

Death is caused in such cases by shock, compression of fractured bones, or blood clots, by hemorrhage of brain vessels, inflammation, or suppuration, suddenly or gradually. "Certain arteries give way more frequently than others."[1] "Traumatic hemorrhage occurs in and from a lacerated portion of brain, and is most frequent on the surface,—especially on the convexity of each convolution. It is most frequent in regions much exposed to injury, direct or by contrecoup, as the convexity, or the temporo-sphenoidal lobe, or under the surface of the frontal lobe."[2] The complexity of the results of head injuries and the frequent inability to determine whether certain effects are produced by a concussion, fracture, compression, contusion, or laceration, are described by Duret.[3]

Tuberculosis disseminated throughout the meninges has rapidly supervened after a blow to the head, and syphilis readily develops in the brain or its envelopes, if latent or active in the system, after the head has been hurt. "Traumatic injuries and alcoholic excesses may imitate the evil effects of heredity, and artificially produce a predisposition to nervous and mental disease."[4]

Complete recovery from concussion of the brain occurs in an undetermined number of cases, but physicians have patients whose persistent headaches, diffused, or in the front, back, or top of the head, were thus originated. Some complain of throbbing, others of a dull pain, which may be brought on or intensified by stooping, constipation, worry, stimulants, or exposure to heat.

Sleeplessness is a troublesome and frequent, though not invariable, consequence. It is more common soon after the injury than later. Distressing dreams are frequent at such times. In rare instances there may be a disposition to sleep too much after the first effects have abated. Young children are apt to suffer from "night terrors," scream in their sleep, and have jerkings of the limbs, as a result of the irritation of head injuries.

Irritability is frequent among head injury cases, varying from irascibility provoked by trifling affairs, an explosion of anger, or

[1] Duret, Archiv de Physiologie, 1874, 663.
[2] Gowers, Diseases of the Nervous System, II., 393.
[3] Etudes Experimentales et Cliniques sur les Traumatismes Cérébraux.
[4] Spitzka, Manual of Insanity, 268.

a passionate manner, to the most violent outbursts of temper. Cooks and furnace feeders are irritated by exposure of the head to heat; and armored divers mention an involuntary feeling of anger during their descents, caused by the suffusion of the blood vessels of the brain. The eyesight is blurred at times, or there may be pain on exposure to light (photophobia); sometimes half the visual field may be impaired (hemianopsia); reading may be difficult or even impracticable because of "swimming" of vision upon attempts to read. The hearing may be impaired in one or both ears. In my practice the left ear and left eye have suffered derangement most often; but the other side is liable to be also affected. Roaring, hissing, or blowing noises are frequent (*tinnitus aurium*). Dizziness or vertigo may be experienced, and there may be more or less inco-ordination, with a tendency to stagger when the eyes are closed. Stooping or any change of posture that increases blood in the head induces painful feelings in the head of such patients. Sometimes great restlessness is felt, impelling one to walk or to other constant movement. Weakness, listlessness, and an air of preoccupation and inability to fix the attention for any length of time, is observable in many. They complain of forgetfulness and other defects of memory. Business ability is interfered with, if not entirely lost, through the suffering and debility to which some of these patients are subjected.

Musicians, watchmakers, and others whose pursuits require skill in manipulation or special sense training, have lost their ability to continue their occupations after injuries of this kind.

Weakness of special muscle groups or paralytic states, costiveness and sensory disturbances, and twitchings of the leg, arm, and face muscles, and, more often, the eyelids, are experienced by some who have sustained brain concussions. It may be barely mentioned that paralysis—from paralysis of portions to complete half-sided paralysis (hemiplegia)—may be caused by structural damage to the brain. Increased faradic and galvanic reaction may be found in even the slighter cerebral injury cases at times. Less often the speech may be deranged by the injury, and there is a hesitancy or stutter, sometimes a distressing stammer, that practically incapacitates the sufferer from speaking so as to be understood. The heart action may be changed, sometimes accelerated;

the knee-jerk on one side or both sides may be found to be exaggerrated, and, in still rarer instances, hallucinations of sight or hearing may exist without insanity, though in the case of hallucinations of hearing from trauma there is dangerous proximity to insanity. After a head injury there is an increased susceptibility to heat, which aggravates the symptoms; and there appears a proclivity to take intoxicants, that should by all means be overcome, as the drinking intensifies the symptoms and the dangers to reason and life. Many are rendered furiously maniacal by small quantities of liquor. Quite a number of head injury patients, however, are abstainers, often because they are aware of the dangers of drinking, in their particular cases.

Sunstroke, or overheating (insolation or thermic fever), or a stroke of lightning, may cause symptoms identical with those due to head injury; and destructive diseases of the brain or meninges,—such as cerebral syphilis, inflammations, tumors, extravasations, etc., occasionally exhibit close resemblances to traumatic brain disorder. Alcoholism—especially in the irritability induced, and in some other respects—causes behavior like that noticed after a head hurt.

While a head wound which appears very serious has in a few instances caused only trifling effects, such as are described as often following upon apparently insignificant blows, the most serious symptoms may appear in a case where there are no visible evidences of the injury,—such as scars or depressions on the head. "Even after apparent recovery the patient often suffers from persistent headache; his mental powers are impaired, his speech may be indistinct and stuttering, his special senses may be permanently impaired, and he remains excitable and is apt to give way to uncontrollable bursts of passion." [1]

Lasegue, quoted by Tuke,[2] designates as *cérébraux* patients who, having at some period of their lives met with an accident to the head from which they apparently recovered, after several months or years present symptoms of a very special kind, which, uncertain at the outset, do not correspond to the true actual types of acute cerebral diseases. This traumatism has resulted in making the brain a soil different from the cerebral soil of a

[1] Ross, Diseases of the Nervous System, 599.
[2] Dictionary of Psychological Medicine, 187.

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normal individual. The illustrations further cited by Tuke (*Ibid*) are those of suddenly developed epilepsy, with abusiveness, somnambulism, and destructiveness, and unconsciously performed acts.

Head injury, as is well known, causes epilepsy in some; but, as it does not appear to differ in any respect from epilepsy in general, except that complications similar to those found in other head injury cases sometimes occur, its discussion can be referred to the consideration of the entire matter of epilepsy.

Some persons seem more likely to suffer from head injury than others. The blow that would not have affected one individual may destroy another. Bad heredity or an acquired tendency to brain disorder, such as alcoholism produces, might render one liable to succumb to a head hurt that otherwise might not have affected him permanently.

Among Lasegue's *cérébraux* might be included those who, long years after a head injury,—one that may have been forgotten,—develop crotchetiness or strange impulses, or who by their susceptibility to a small amount of liquor, or their unaccountable immoralities,—a petty theft or a street brawl,—or in some unlooked-for way, bring shame and grief to a respectable family, from every other member of which the *cérébraux* differs radically, for the worse. A bad temper is probably the most observable trait; otherwise he may be as nearly normal as the others. This perversion may not be induced by head injury alone. Scarlet fever or measles in childhood may have caused a suppurative otitis media, and in some cases cause similar troubles, or ends in easily recognizable insanity. The meningo-encephalitis subsequent to the ear trouble causes the brain changes upon which the character alteration was based.

Injuries to other parts of the body occasionally develop insanity in those who are predisposed. The liability of alcoholics to delirium tremens, which is an acute insanity, after a minor surgical operation, will be remembered; and even so slight a cause as a not severe crushing of a hand has brought on an attack of mania which differed in no way from the ordinary.

When the first effects of head injuries have passed away there may appear irritability of the brain and spinal centers, indicated by sensitiveness to slight impressions, such as exaggerated knee

and other reflexes; and very small amounts of electricity often in such cases cause reactions which could not be secured in health with much larger currents. And if such undue response is found upon one side, fewer milliamperes of the galvanic and less faradic current sufficing to cause reaction upon one side than are required upon the other, the irritable portion of the brain, indicated by such exaggerated electrical reflex, is upon the side of the head opposite to the muscles that are more readily affected by the smaller currents, resembling in this respect the exaggerated electrical responses found in recent cases of hemiplegia from cerebral hemorrhage.

Insanity wholly due to a head injury does not render descendants liable to become insane. I knew of one case of insanity in both father and son, the first dating from a head injury; but the trauma was the exciting cause of the insanity in the father, who merely transmitted his predisposition. Heredity is not invariably the cause when two cases of insanity occur in the same family; but it is suggestive thereof in the large majority of instances.

The mental ailment being apt to develop long after the receipt of the injury, surgeons do not ordinarily encounter or recognize the disorder, as is evident in the bare mention by Agnew[1] and Bryant[2] that insanity may follow head injury and there be no external evidence, upon the head, of the injury.

In hospitals and private practice, cranial injuries are seldom followed, from lack of opportunity; even military surgeons are debarred from a satisfactory study, for in the field such cases are sent to the rear, discharged as disabled, or otherwise escape observation after the wound, if any, has healed.

From various causes, even insane asylums differ widely in their statistical records. Thus, Clouston[3] encountered but 12 cases in 9 years at the Royal Edinburgh Asylum, and infers that "accidents to the head do not loom largely, therefore, in the production of the insanity of the world." On the other hand Schläger[4] found 49 out of 500 cases of insanity to be traumatic. Sankey

[1] Agnew's Surgery, 304.
[2] Bryant's Surgery, 200.
[3] Mental Diseases, 300.
[4] Zeitschrift der K. K. Gesellschaft der Aertze zu Wien, XIII., 1857, p. 454.

is silent on the subject, as his cases were females in the Hanwell Asylum principally. Pritchard[1] quotes from Esquirol[2] traumatic cases in private practice: 8 in 120, Salpêtrière 26 in 361, Charenton 11 in 256, total 45 in 737, of which 22 were from head blows or falls, and 23 *coup de soliel.* Worcester[3] cites (J. Crichton Browne's West Riding Asylum Reports) that from April 1, 1870, to the same date in 1872, there were admitted 42 such cases, fifteen times more numerous annually than in Edinburgh. While pathologist at the Chicago county asylum I ascertained 49 cases wherein traumatism was operative among 610 patients, and my report[4] divides them as follows: Causes ascertained 357, unascertained 253; of these 24 males, 3 females, had head injuries; 3 males, 1 female, were sunstruck; 3 males had been subjected to intense heat, 1 male had become insane after a lightning stroke upon the head. In these the traumatism appeared to be the only cause, but in 2 male cases typhoid fever, in 1 male a fright, in 1 male and 1 female a tendency to hebephrenia, and in 2 males and 3 females heredity were associated; 3 males were epileptic, 1 male had been sunstruck in addition to having a head injury.

Mickle[5] states that in 1221 cases of paretic dementia tabulated in the 1878 Lunacy Blue Book for England and Wales, 3.1 per cent was caused by sunstroke, and 46 per cent by cranial injury.

The proportion of insanity due to blows and falls upon the head, overheating, and sunstroke, from various authors, approximate from among all other forms of mental disease about 6 per cent.

Winslow[6] believes "that the importance of head injury as a cause of insanity cannot be exaggerated," and further states: "In some instances accidents of the kind may not be followed by serious results, but in certain temperaments, or conditions of bodily health, and in particular predispositions, we may safely predicate the development of chronic disease of the brain as the

[1] Insanity, 136 *et seq.*
[2] Art. Folie, Dict. des Sci. Med.
[3] Insanity and Its Treatment, 90.
[4] Chicago Med. Journ. and Examiner, April, 1884, 388.
[5] General Paralysis of the Insane.
[6] On the Brain and Mind, 440.

result of neglected blows on the head. Injuries of this character occurring to persons of a strumous habit, or suffering long-continued debilitating diseases, impaired nutrition, overwrought and anxious minds, or a constitutional liability to mental or cerebral disease, are frequently followed by serious and often fatal results."

Krafft-Ebing[1] says that the patient rendered insane by a head injury becomes excitable, violent, brutal, quarrelsome, prone to excess *in baccho et venere*, and approaches to the ideal of a maniacal moral insanity.

Head injury may precede insanity, and have no relation to the insanity, just as head injury may coexist with sanity. But cranial injury may predispose to insanity, especially the alcoholic and syphilitic forms. One who is predisposed to insanity by heredity or otherwise is more liable to be made insane by head injuries than one who is not so constituted. Head injury may modify, complicate, or aggravate other forms of insanity. Head injury is sufficient, of itself, to produce insanity, even where there is no predisposition to become insane.

Instances of head injury during youth, developing epilepsy at puberty and insanity at fifty, are noted by Calmeil[2] and Lasegue.[3] Esquirol[4] mentions a three-year-old boy who fell upon his head and became insane at seventeen, with headaches in the interim. Rush[5] one at fifteen, who fell from a horse, sustained contusion, and died insane a few years later. Voisin[6] and many others recite similar instances. Savage cites a slight head hurt in a lad causing insanity, but he was strongly predisposed by heredity.

Duret,[7] Rush,[8] and others note the slowness with which cerebral injuries manifest themselves; some observers mention four to ten years and later. Griesinger[9] says that traumatism may

[1] Ueber die Gehirn-Erschütterung, Erlangen.
[2] La Paralysie chez les Aliénés.
[3] Paralysie Générale des Aliénés, Voisin.
[4] Maladies Mentales.
[5] Medical Inquiries and Observations, 28.
[6] Op. cit.
[7] Etudes exp. et clin. sur les Trau. Cérébraux, 137.
[8] Op. cit.
[9] Mental Pathology and Therapeutics.

produce insanity at once or several years afterward; that it predisposes even without visible cerebral lesion. Savage, Winslow, and Krafft-Ebing call attention to the same fact; and the latter divides traumatic insanity into kinds produced immediately or later, sometimes many years. In nineteen of Schläger's forty-nine cases, insanity began within a year of the accident, in the remainder in from four to ten years afterwards.

A soldier who was wounded by a musket ball which shattered the left supra-orbital ridge when he was twenty years old suffered the usual physical disabilities described above, and at the age of fifty developed traumatic insanity. A physician at the age of forty was shot by a pistol ball glancing upon the right mastoid process, and, in five years became demented. A penetrating incision of the left frontal bone when eight years old healed uneventfully, and forty-one years after, aggressive hallucinatory paranoia appeared, and has existed seven years; no cause other than the head wound is supposable. These three cases are from my hospital and office records.

Skae,[1] in proposing a classification of insanity based mainly upon causes, claimed that "traumatic insanity presents its own special psychological character," to which statement Tuke demurs,[2] stating that "his own experience would induce him to think that very different mental symptoms frequently result from wounds or blows on the head." Both observers are perfectly right, as later experience proves; but their differences of opinion are caused by the fact that head injury does cause many very different forms of insanity, and that it also directly induces a special form with symptoms peculiar to itself, fully justifying Skae's designation, "traumatic insanity," which has been adopted by Krafft-Ebing, Spitzka, and later writers.

Epilepsy and the insanity of epilepsy are frequently caused by head injury.

Ecchevaria[3] states that 35 in 321 epileptic insane were such from traumatism, and Gowers[4] found 92 epileptic cases in 1,450 due to head injury. One of the most violent and dangerous epileptic maniacs I ever knew had a fractured skull.

[1] Journal of Mental Science, October, 1875.
[2] Psychological Medicine, 42.
[3] Epilepsy.
[4] Epilepsy, 26.

Mania from traumatism is likely to be the recurrent fury that sometimes suddenly appears in the traumatic insane, usually brought on by liquor or by being overheated. The rapid development and subsidence of the outbreak in one who had sustained a head injury would suffice for this diagnosis. In 1895 a gentleman whose head had been trampled by a horse, three years previously, terrorized the suburb of Woodland Park, near Chicago, by shooting all one night at everyone in sight, imagining that he was attacked by burglars. He quieted rapidly at the detention hospital, and appeared as sane as before the outbreak. A trauma sufficient to induce a prolonged mania, in my opinion, would cause the chronic form and pass to terminal dementia, instead of the simple mania from which so many recover.

Melancholia succeeds some cases of spinal injury, due to the induced suffering and depression; but I am not aware of any well-authenticated instance of melancholia induced by a head hurt. The irritable depression of the traumatic is not melancholia proper.

In this connection it is worth recording that while head injury often (not always) leads to drink, those with spinal trouble are made so uncomfortable by liquor that even hard drinkers become abstainers after accidents to the spine.

Circular and periodical insanities may be originated or precipitated by head injury. This is also true as to katatonia. But the symptoms of paretic dementia observed at times in such cases are apt to be transitory and combined with traumatic insanity symptoms generally, or to pass rapidly to dementia and death.

The insanity of puberty, hebephrenia, and that of old age and senile dementia, may be brought on in those predisposed thereto by traumatism.

Traumatic dementia usually runs a rapid course to death, and follows upon severe injuries.

Traumatic idiocy. W. W. Ireland,[1] under the head of traumatic idiocy, includes cases due to injuries to the embryo child by attempts at abortion, and damage done during parturition by contracted pelvis and the use of forceps. These may cause concussion, compression, hemorrhage from the meninges, and de-

[1] On Idiocy and Imbecility, 1877.

struction of the gray or white cerebral substance. "Sometimes the injury to the mental powers is permanent; sometimes it disappears more or less slowly; in some cases a trifling injury to the mental powers is permanent; sometimes it disappears more or less slowly; in some a trifling injury causes grave disorders; in others what appears to be a great injury leaves no visible effects behind. Hereditary predisposition has, no doubt, much to do with this."

Traumatic imbecility. Shuttleworth[1] states that 8.25 per cent of the admissions to the Royal Albert Asylum for Idiots and Imbeciles originated in traumatisms, mainly injuries to the head. and that of noncongenital causes the main divisions are traumatic and post-febrile, and in each the characteristic lesions are the products of inflammatory processes. Wilmarth,[2] formerly pathologist of the large Pennsylvania Institution for Feeble Minded Children, states that in 100 consecutive autopsies made by him he found in 54 conditions constituting the residual effects of former disease or traumatism. In a large number of cases sclerosis with atrophy was observed; in a few the *sclerose tubereuse* of French writers. Thickened and adherent membranes, following meningeal inflammations and interfering with the due supply of blood to the cerebral cortex were noticed in a considerable number of cases; whilst porencephalus, which in some instances is the terminal condition of acute inflammatory lesion, existed not infrequently.

Children or youth under my own observation, who have become imbecile after a head injury, are usually restless, mischievous, and disobedient, because of their inability to recollect instruction or reproof. They make no progress in school, though they often learn to read and write fairly, or they retain something of what had been previously learned. But education is ineffective to some degree, the ability to apply learning being impaired. Many different forms of imbecility, from slight to grave, may result from head wounds, and it may be further modified by the age of the one hurt. It is not always discernible at once. There may, for the time, be nothing about the appearance or behavior of the child to denote mental defectiveness, but testimony may show

[1] Mentally Defective Children, 1895, 33, 39.

[2] Journal of the American Medical Association, August, 1894.

serious loss of mentality. Such symptoms as are found in ordinary traumatic cases may be present, such as sleeplessness, headaches, etc., though this is not always so. The mental degradation often overwhelms the physical symptoms, and as in other head injury instances, there may be no scar visible upon the head.

Traumatic paretic dementia is not the ordinary paresis, but a mixed form, blending the peculiarities of the traumatic with those of a shifting, illy-defined paresis, and often linked to a distinct paranoia, but the latter is modified by the paresis which governs the prognosis. Mickle[1] says: "In the cases which have come under my observation where cranial injury has conduced to general paralysis, it has in the majority served to play the part of a predisposing rather than an exciting cause." Closer study of these with other traumatic patients would enable him to see the injury alone sufficient in the majority, for it is too frequent to be otherwise. Sankey[2] tells of a patient injured by a fall, who was a week insensible, and recovered, but two years later paretic dementia set in. In Burman's statistics,[3] 103 paretic dements were such through sunstroke in 7 and head injury in 12 cases. In 1221 cases of paresis stated by the English Lunacy Blue Book for 1878, 3.1 per cent were caused by sunstroke, 4.6 per cent by head injury.[4] Mickle[5] discusses the influence of cranial injuries and heat as predisposing and exciting causes. Calmeil[6] speaks of similar results from exposure to great furnace heat. Brierre de Boismont[7] affirms that paretic dementia may be preceded two or three years by great irritability, or menace of suicide, or character change and memory failure. It would be useful to know whether such cases are not traumatic, but the author cited gives us no clue to this. Burman and Calmeil unite in calling attention to the frequency of paresis in the army and navy. The hypochondriacal, suicidal, and homicidal paretics of Mickle, with delusions of persecution, it is noteworthy, were

[1] Journal of Mental Science, January, 1883.
[2] Lectures on Mental Disease, 2d ed. 287.
[3] Bucknill and Tuke, Psychological Medicine, 329.
[4] Mickle, General Paralysis, of Insane, 102.
[5] Op. cit., 98, 108.
[6] Mickle, loc. cit.
[7] Annales d'Hygiene pub. et de Med. Legale, 1860.

military, a class particularly subject to head hurts and heat exposure. Careful inspection of Mickle's cases shows the likelihood of a much larger undiscovered number of traumatic patients. While several of his soldiers were sunstruck, and one was hit by a poker, the evident traumatic symptoms detailed were not referred to as such, and these same symptoms existed in several other cases in which there was no mention as to whether there had or had not been head injury. The precedent eccentricity, suicidal attempts, irritability, passion, insomnia, and alcohol addiction, point to a probability of traumatism in his Cases 10, 12, 13, 15 and 16. Case 13 had early epileptic convulsions, and 15, epilepsy eight years before.

While an idiopathic epilepsy may become paretic, and neither ailment be attributable to trauma, the epileptiform seizures of paresis should be studied with regard to traumatism, especially if the fits occurred early in the disease or heralded it, as affording a possibility of traumatism. At least as traumatism causes epilepsy and paretic dementia, it would be well to determine to which of the three conditions the spasms are due, and whether in traumatic paretics the epileptiform phenomena, from *petit* to *grand mal* or their similtudes, do not occur more frequently or sooner than in other paretics.

Parchappe, Calmeil, and Burlureaux assign epilepsy as a cause of paretic dementia. Let us next ascertain the cause of the epilepsy.

Cerebral syphilis and syphilitic insanity may be developed in the nidus afforded by the injured brain or membranes for the post or pre syphilitic poison.

Alcoholism and alcoholic insanity may coexist with, precede, or follow upon traumatism, and be associated with it in many ways.

There are cases wherein paranoia, epilepsy, and paretic dementia are united, where one predominates or persists to the exclusion of the other form.

Analysis of Mickle's cases shows the remarkable fact that Cases 10, 12, 13, group 3, paranoia with paresis, *post mortem* proved the left cerebrum most diseased; in Case 15, group 4, with epilepsy, the paresis predominated, and in the paretic and alcoholic Case 16, group 4, the right cerebrum was most diseased in both.

Traumatic paranoia may occur with or without the paretic symptoms, simultaneously with, or successively thereto. I should judge from the accounts of the *American Crowbar Case* that paranoia was the prominent, if not the sole, manifestation in that instance. Left frontal hurts or heredity appear to determine the appearance of this logical perversion.

F. S. Dennis[1] mentions that "the celebrated *Harvard Tamping-iron Case* has been so often described that it would be unnecessary to detail it here," and illustrates the bar passing from below the left malar bone through the left orbit and out through the fronto-parietal junction, left of the median line.

When the form of insanity changes or seems evanescent the resemblance to phrenasthenia is marked, the injury having unsettled the mind without conferring a definite kind of insanity, though any kind is apt to develop and remain, or give place to another kind.

The prognosis of traumatically induced insanity is unfavorable. Schläger attests this. Spitzka says: "As a rule progressive deterioration sets in, and dementia terminates the history of the case." Marce also states that "the patient becomes progressively demented." All writers coincide in this. Where dementia follows swiftly, death does also; but other terminal dements from traumatism may linger an ordinary lifetime.

To this point in the subject we have regarded many phenomena (but not all) that could be included as occurring in traumatically induced insanity, or that have some association with traumatism, leaving the insanity of traumatism for separate inspection. Owing to the fact that authors have not fully differentiated this from other head injury forms, we have but little data for percentage calculation. It is probably related to other insanity in the proportion of 1 to 2 per cent,—about one fifth of all head injury insane cases.

I would designate as *traumatic insanity* that which exhibits the constant phases that characterize it, the pathological term "traumatic" being used *in a clinical sense* and justified by the sufficient invariability of symptoms following demonstrable brain injury. Nor would it be unreasonable to include under that

[1] System of Surgery, II., 547.

head all cases presenting the characteristics, whether head injury could be demonstrated or not. It would be as correct to infer the trauma or its equivalent from the symptoms as it would be to assert cerebral deficiency in idiocy, regardless of the external cranial appearance.

The objection to the term "traumatic insanity" is that it misleads many to suppose that any and every insanity following upon a head injury is included in that division, just as hysterical, epileptic, or any of the mental derangements that may at times appear after childbirth, are called puerperal insanity by those little versed in alienistic matters, simply because the puerperal state is the obvious exciting cause. The objection to including traumatic in the pure group, when it manifests paretic dementia symptoms, can be met by the further observation that such forms are impure, and were we to classify a case under, say, paretic dementia, other co-existing symptoms would be likely to develop, or the paresis would be too feebly marked, while the peculiarities due to traumatism are strongly marked. Traumatic insanity is pure in the impurity of the psychoses it simulates.

The maniacal excitement with which Skae states that it usually begins is most likely the fury which often calls attention to the disease, which may have been previously apparent to an expert; for Schläger and others do not mention this kind of onset. Skae's further observations are well sustained: "A chronic condition, often lasting many years, when the patient is irritable, suspicious, and dangerous to others; in many such cases distinct homicidal impulses exist; this form is rarely recovered from, and has a tendency to pass into dementia and terminate fatally by brain disease." The "characteristic delusions" he additionally enumerated, as "those of pride, self-esteem, and suspicion," are best separated into those allied to paranoia and paretic dementia. Schläger speaks of "self-conceit, prodigality, disquiet, and restlessness." These and other aspects of the subject may now be detailed *seriatim*. The first thing to occur as a symptom usually being—

Change of character. This is very often ascertainable only by a comparison of the behavior before and after the injury, upon testimony of relatives and acquaintances. Commonly the traumatic lunatic is described as "not being the man he was." These changes are often radical and consist of—

Lapses of memory, as in epilepsy, more noticeable than a general failure of that faculty. The memory cannot be said to be as acute as previously, and forgetfulness of names, persons, places, and transactions are occasional or frequent, but the most notable are the memory *gaps*. As Spitzka says, entire periods of life may be obliterated from the mind, but in my cases these *lacunæ* were, so far as I could determine, limited to the epileptic-like, automatic furies, and to other occasions when insane acts were committed, varying from a few minutes to many hours or days in some cases. As in other insanities, juvenile or old events are more readily remembered than recent occurrences. Empty abstractions occur from which the patient may be aroused to sudden, startled attention, and he is then unable to tell what he had apparently been thinking about. Headaches, sleeplessness, irritability, suspiciousness, and sudden furies, common after head injuries in those whose reason is not supposed to be unsettled, continue into the recognized insane state.

Long apparently lucid intervals. It is not best to omit the "apparently," for there is no telling at what moment the insanity may explode in an outrageous act, and while hallucinations and other features of insanity exist, even though the patient may talk and act rationally, the insanity is not absent. Personal inspection of the patient may reveal nothing beyond a slight peculiarity of manner, or not even this. The speech may or may not be affected, the pupils may be dilated, contracted, or normal, and respond to accommodation tests and to light. There may or may not be paresis of muscles or other determinable physical impairment; and such cases in asylums are often capable of doing routine work in an intelligent manner, but they should always be looked upon as dangerous.

Homicidal and suicidal impulses, as frequent and characteristic occurrences in traumatic cases, are recorded by Spitzka[1] and Clouston,[2] who cites a case.[3] Many of Bucknill and Tuke's[4] descriptions of homicidal impulse read like traumatic cases, but

[1] Manual of Insanity, 370.
[2] Mental Diseases, 298.
[3] Op. cit., 244.
[4] Psychological Medicine, 254, *et seq.*

epilepsy (which may have had the traumatic origin) is discussed in their connection.

In 14 of Schläger's 49 cases "there were suicidal attempts, with loss of memory and confusion." Pritchard[1] declares that "the propensity to suicide is very often combined with the impulse to homicide," and that "acts of suicide, like those of homicide, are generally preceded by a morbid change of character and habits. Individuals who have been cheerful, active, animated, taking a lively interest in the pursuits of life, in the society of their friends, in their families, become melancholy, torpid, morose, and feel an aversion to their relatives or most intimate associates, and become listless and indifferent. These appearances have often been observed to be the preludes of some attempts at suicide, and have sometimes put the relatives on their guard, and have prevented the catastrophe."

And Savage[2] very justifiably writes: "I would say that in considering a murder the first question to be asked is, What was the assigned cause for the crime? Was it the natural development of surroundings and habits? To my mind certain crimes are themselves sufficient evidence of mental unsoundness. If a person, with or without a sudden shock, become completely changed in his domestic relations—if a man who is a good husband and a kind father kills wife or child, without any established delusion, I think the crime itself is sufficient to cause a prima facie belief in the existence of mental unsoundness. The chief points, then, are the apparent causelessness of the crime, the utter want of relationship between the crime and the supposed end to be attained, the relationship between the crime and any delusions, the establishment of any insane or nervous inheritance, or the proof that the patient himself at one time or another has been of unsound mind or epileptic. Next after the consideration of the causation of the crime itself and its surroundings, it is important to obtain evidence as to acts immediately preceding and immediately following the deed, as well as to find out the details."

In many cases of traumatic insanity murders the previous insane predisposition is emphasized by the fact that a number of immediate relatives have been insane.

[1] On Insanity, 284.
[2] On Insanity, 469.

Alcoholic complications are very numerous, and where one exists, a murder—especially a wife murder—may be the result of this, as alcoholic lunatics, influenced by their marital infidelity delusions and hallucinations, commit peculiarly horrible crimes of this kind. A drunken katatoniac disemboweled his wife in Chicago, running into the street in his nightgown. He was sent to the penitentiary after puzzling the doctors with the alternations of that disease. Periodically the daily papers recount the acts of an ordinary katatoniac as a "wonderful case baffling all the physicians." Spitzka[1] mentions Lennon, a New York alcoholic, who cut his wife up in regular checker-board pattern. That both alcoholic and traumatic insanity are murderous might raise the quibble in court, To which was the crime attributable? As the head injury induces the alcoholic lunacy it should not matter, but there is a psychological interest in the disentanglement. The delusion of the wife's unfaithfulness might shift the homicide upon the liquor lunacy.

1. Alcoholism in the ancestry may predispose through transmitted nervous or mental instability, so that traumatism will be more likely to induce insanity in a descendant.

2. It renders the individual liable to accidents, despite the old saying that drunkards escape injury.

3. Previous alcoholic habit complicates and aggravates traumatic cases as it does pneumonia, and may be the determining factor of insanity, where the abstemious, with the same injury, would survive and may remain sane. It retards recovery, and alcohol after a head wound or sunstroke readily congests the brain, a condition especially to be avoided.

4. A proneness to alcoholic addiction is observed as remarkably frequent after a head injury, sunstroke, or overheating.

5. Traumatic cases are quickly, readily, and badly affected by small amounts of liquor which previous to the injury would have had little if any effect. "A little will always make them maniacal and often very dangerous and homicidal," says Clouston.[2]

6. Alcoholic insanity may be superimposed upon traumatic; and many degrees of these two psychoses combined are observable.

[1] Manual of Insanity, 254.

[2] Op. cit., 298, 299.

7. The delusions peculiar to the alcoholic insane are sometimes found in traumatic cases complicated with alcohol, even though the alcoholic insanity may not fully exist. This is an important observation.

8. As it is probable that a majority of head injury cases are addicted to liquor, the relations of alcoholism to this insanity should be clearly understood as of medico-legal importance, for the law makes a distinction between acts done through insanity from liquor continuously used and those occasioned by liquor "voluntarily" taken. Fearing that advantage may be taken of the plea if drunkenness secures acquittal, the legal fiction remains, to be swept away by further advance in civilization, that every drunkard is responsible for his crime. Since this is in the statutes there should be careful discrimination of the effects of alcohol in criminal cases. It should be known that injury predisposes to alcoholism, and that one or the other psychosis may predominate in the same individual.

Frequently we have to combat the error of mistaking an effect or product of insanity for the cause; and nowhere is so much injustice exhibited as in these instances.

I knew an officer of the regular army whose eye was shot out and his fore-brain injured during the late war. He was jovial, dissipated, and occasionally irascible, especially when marching. He was thrice court-martialed for acts committed under liquor influence, and threatened with cashiering. He had no sympathy from his brother officers, who were harsh in their condemnations. His previous brilliant record for bravery stood him in good stead, whereas the pathological condition should have been recognized in mitigation or excuse. A fireman is in an Illinois asylum with a battered head received in the course of duty. He was previously temperate, and as he drank heavily afterwards, this was adjudged the cause of the insanity, and his wife is refused the customary pension.

If we adopt the *dictum* of the Earl of Shaftesbury (he was in a position to make such an affirmation, having been the head of the English Lunacy Commission for fifty years), that 50 per cent of all insanity is due to alcohol, I think that careful tabulation will show much of this alcoholism to be induced or precipitated by cranial injury, which latter becomes the real, and the former the apparent, cause.

Delusions, illusions, and hallucinations are those of being persecuted, and are often hypochondriacal, as in paranoia; those of grandeur, as in paretic dementia; those of poisoning and marital infidelity, as in alcoholic insanity. Delusions, irritability, suspiciousness, and other symptoms are often noticed only by the family; but where evidence of these is given by persons who are not relatives the testimony is apt to have more weight with juries, in suits where responsibility or money interests are concerned. Members of a jury may have sustained severe head hurts in their lives, and be very reluctant to believe that their minds were in the least affected thereby.

Sleeplessness being an important factor, its extent should be established by persons who have observed the patient at night. One who attempted to feign insomnia would have an exceedingly difficult part to sustain. Some traumatic patients, however, sleep as well as they did before the injury,—especially months or years after the accident.

Simple inspection or superficial observation may reveal nothing as to the mental derangement, but after a sufficient examination of the patient and hearing testimony as to his behavior, an alienist may succeed in making the fact of insanity or its absence clear to the inexperienced. The statements of witnesses may enable an alienist to form an opinion as to the relationship of the insanity and head injury; but sometimes material evidence sufficient for the physician is omitted because its importance is not appreciated by an attorney, or because it is not obtainable, and an opinion cannot be formed on account of insufficiency of evidence.

It is important to ascertain whether insanity preceded the injury, where the latter is alleged to be the cause of insanity, for it may be due to phthisis, senility, or causes other than an injury, though the injury may develop latent insanity of different forms, or it may aggravate an existing insanity.

Cases of Head Injury.

Lieutenant E., of the fire department, fell 30 feet, causing stellate fracture of the right occipito-parietal and post-occipital regions. He was maniacal immediately after the fall, for an hour, and semi-comatose two months, after which he developed *petit mal* attacks of epilepsy about weekly, but these disappeared;

and the only apparent remaining symptoms, eight years after the fall, are occasional irritability and excitability, with lessened capacity for work of any kind, and susceptibility to the influence of heat. He is temperate, and does not suffer from headaches or insomnia.

A woman aged thirty-five brought an action against a railway company for fracture of the skull sustained in a collision. Upon examination three years afterward and during the trial, there was a depression caused by the removal of an inch square of the skull bone on the left side above the temporal portion, at the junction of the frontal and parietal bones. While the injury was fully sufficient to cause insanity, proper opportunity to examine witnesses was not afforded, and the suspicion was aroused that she might be simulating. Her behavior was silly and not characteristic of the traumatic insane. Had she behaved thus for any previous length of time, there should have been no difficulty in proving it; nevertheless, she may have been mentally affected by the accident, and ignorantly trying to help her damage suit by pretense. Necessarily an opinion was not reached.

A case of simple mania occurred in a young lady of twenty-eight through exposure to severe summer heat, but this was evidently merely the exciting cause, as there was a predisposition, due to debility.

A sunstroke precipitated an attack of traumatic insanity in a gentleman of forty-five years whose sister had been puerperally insane.

Traumatic dementia. W., aged forty, depressed contused wound left upper frontal region from a falling brick; in two years became crotchety, irritable, intolerant to liquor, sleepless. Memory and business ability suffered impairment. Without warning one day broke up furniture and raved about his house. Mentally deteriorating.

Traumatic dementia. L., aged forty-eight, mechanic, vigorous, cheerful, and industrious, was struck by flying stone in left parietal region, and within a year was helpless, irritable, sleepless, easily affected by small draughts of liquor; "it went to his head and made him crazy." Lost memory for recent events. Repeated questions he had asked but a few moments before; photophobia, hemiparesis upon same side as the scalp wound (*contrecoup*

is notably frequent in these cases, but Duret's researches account for it). He lost all relish for music and reading, of which previously he was very fond, and presented the appearance of advanced age.

Traumatic dementia. A railroad official named Murphy was brought to me after being pounded upon the top of his head with a large rock. He soon after became stupid, could not describe his feelings or condition, had forgotten nearly all he knew, was sleepless and troublesome at home, but too demented to be furious. At an early stage of his insanity he had faint paretic ideas. He died, I was told, in an asylum three years after the injury.

Traumatic dementia. John G., American, machinist, lightning marks along forehead, neck, and left side. Was struck in 1880, suffered mainly pain in head and stomach, but was conscious and talked rationally till the third day, when left hemiplegia occurred and lasted a year. The paralysis included facial with ptosis. Tongue and vocal organs first to recover in 1881, when insanity became evident. Irritable, homicidal, suicidal, destructive, noisy, suspicious, erotic, jealous of wife. In 1883 a terminal dement.

Traumatic paretic dementia. D. S., negro, teamster, aged fifty-four, scar on right forehead, arrested for larceny, but found to be insane, well behaved between furibund attacks, during which he had paretic delusions of great wealth. Hallucinations of sight and hearing. Saw God in a chariot once, who commanded him to escape. It required six men to subdue him, as he had unusual strength. Died of pneumonia a year after insanity began. Medulla small. Isthmus cerebri, left Rolandic, frontal parietal and temporal regions, arterial engorgement, extreme in occipital portion. Capillary extravasations in course of superior longitudinal sinus, streaking the dura with the rusty color often found in alcoholic insanity. Veins of left side cerebrum fuller than right.

Traumatic paretic dementia. M., aged thirty, machinist, struck in the forehead and top of head by conductor's lantern and soon after began drinking heavily, developed irritability, memory and business ability impairment, sleeplessness, and prodigality, and died demented.

Petit mal and paranoia following traumatism. B., aged

twenty-five, clerk, paranoiac father beat him over the head repeatedly when he was young, had attacks of *petit mal*, was temperate, but irritable (except to wife and mother), suspicious, had memory lapses and delusions of persecution for which a direction and basis was afforded by some abusive anonymous letters he claimed to have traced to two women in his office. He purchased a revolver and deliberately shot both of them in their heads, but they made fair recoveries. The extreme penalty would have been twenty-eight years, but he was sentenced to six years in the penitentiary after the attorneys for the state and defense conferred with the judge. Soon after his release he committed suicide by drowning.

Traumatic paranoia. F., aged twenty-eight, wounded on head in accident on railroad, from which he alone of all the passengers in his car escaped. Some of them were burned alive within a few feet of where he was pinioned by the *debris*. In a year he became a decided paranoiac, suspicious, irritable, quarrelsome; so much so that his attorneys found him unmanageable and compromised damages with the company.

Traumatic paranoia. C., aged thirty, butcher, energetic, habits regular; was struck by locomotive; small scalp wound on head healed completely; unconscious, delirious, and vomited several days. Within six months his memory became impaired, lost his business ability. Sleepless and restless at night, headaches persisted, suffered from dizziness, dimness of eyesight, photophobia, *tinnitus aurium*, and defective hearing. Extremely irritable and suspicious, feeble, stupid, sullen, with lapses of memory, forgetful of faces and places, the least liquor "goes to his head" and makes him worse. His bedfellow stated that he several times rose in the night with hallucinations of burglars breaking in. Twice he fired through the door at imaginary persons he claimed to have heard. He married a girl whose language he did not understand and who could not understand his, while unable to provide for a wife. Beyond a few frontal rugæ, there was nothing in his appearance to indicate insanity. Dr. Edmund Andrews was called by the judge and I by the patient, in a civil action against the railroad company. Dr. Andrews agreed with my statement of the case and C. was awarded $5,000 damages.

Epilepsy with dementia from traumatism. Recovered. K.,

aged twenty-six, Irish; when thirteen was struck upon left side of head with a club; epileptic convulsions every three to six weeks since; irritable, stupid, could not learn to read or write, progressing to dementia. An osteal node protruded an inch behind top of left ear. At my request Dr. A. J. Baxter removed this exostosis by trephining, and I kept the patient under treatment thereafter to avert the headaches which gave warning of the attacks. Since this operation, in 1885, he has fully recovered mentally and from the epilepsy.

Occipital injury with optic hallucinations and without insanity. J. H., aged forty-two, merchant, had fallen upon occiput when a boy of twelve, and suffered frequent pain about the nuchal location, growing worse with age. He drank wine, but not excessively. No mental impairment evident aside from peculiar optic hallucinations, interesting from the cuneus gyrus in the occipital brain being the psychic optic center. He had been treated for tremens, which he resented in passionate outbreaks. I induced him to go to the Alexian Hospital, and lessened the vascular stasis in the back of his head by derivatives, and he was soon attending to business after having lost several months' time. His room would be filled with apparitions of his friends, and he repeatedly asked me how often I had called to see him during the day, when it was my first visit in the morning. He was annoyed by being unable to distinguish the hallucinations from the real personages. As he had no auditory hallucinations I taught him to compel all whom he saw in his room to speak and he was pleased with the result, for the apparitions would not answer him, and his reason aided this discrimination.

Traumatic predisposition to, but without, insanity. A. W., aged forty-five, builder, was sunstruck during the late war, and often irritable and sleepless, with headaches, but not insane. In 1881 was very much reduced by neglected remittent fever, and I gave him ten grains of quinine, which developed a maniacal attack; a second dose brought on a similar fury, but by combining with hydrobromic acid I was enabled to increase the quinine even more.

Paranoia with traumatic insanity and alcoholism. Peter Deegan, aged sixty, farmer, had lived in Ozaukee county, Wisconsin, about thirty years, an Irishman, surrounded by Luxem-

burgers with whom he was incessantly at war. He had been beaten over the head with a club and had fallen out of wagons upon his head during drunken bouts, and, to use his own words, "swam in whisky." He turned his family out of doors and was cruel to his children in many ways. There was evidence that he and his sister were primary paranoiacs. She was hemiparetic and passing into dementia. Both of them saw and talked to the fairies or "good people," left food out of doors for them, and had delusions concerning the dead not compatible with their professed religion. Deegan, in a dispute over a trivial matter (a wagon load of straw), brought two guns from the house, one of which he discharged into the thigh of a neighbor, who died from the effects. On a change of venue he was tried at Sheboygan, Wisconsin. The evidence was overwhelming as to the traumatic and alcoholic nature of his insanity, but there was great popular prejudice against him, and he received a twenty years' sentence.

Traumatic paranoia with alcoholism. Mathias Busch, aged thirty-two, German, brewery beer vender. Grandmother threw herself in a well while insane, father "eccentric," a paternal uncle John insane and confined in a cell in his own house. A son Henry, of this uncle, is in the Jacksonville Asylum, insane; another paternal uncle, Fritz, was insane, and had two daughters, one of whom died in epileptic convulsions and the other gave birth to two idiots.

Busch had been struck on the left forehead when a boy; the scar is still visible; had also a punctured wound in left temple at outer angle of eye from a pitchfork thrust. He had twice been sunstruck. He had been industrious and kind to his family up to the date of his first sunstroke, six years ago, when stupid and depressed attacks followed, with occasional irritability, and drink affected him more than formerly. His occupation led him to drink considerably. He suspected his wife of being unfaithful at times. These troubles, with headaches and sleeplessness, increased after the second attack, but he transacted his business as usual, with occasional moroseness and accusations against his wife. Three years before he attempted to commit suicide with a pistol.

A week before the murder his insanity was noticed by Mr.

McAvoy, the president, and Mr. Ortseifen, the manager, of the brewery. Busch wildly told them that he was being persecuted by the brewers' union, of which he was not a member, but thought he was. He told others that his wife had tried him twelve times in the brewery, and at other times in the lodge (an insurance organization, the benefits accruing only to his wife upon his death). These statements of trials were proved to be absurdly unfounded. He bungled the beer books of his customers, refused to talk to anyone, as he had some hypochondriacal delusions concerning his throat; but he occasionally forgot this and spoke. Customers complained to the brewery, and an agent accompanied him on his rounds, after which he was suspended, but he refused to work anyway, as he said "everyone is against me."

February 2d, 1888, he talked of committing suicide, and accused his wife of "being in a corner with men before his eyes," and said that her hair was mussed and clothes disarranged, all of which was an hallucination. His wife appealed to friends about this time, saying: "Mat is going crazy, he acts foolish, and does not sleep at all." His manner became more insane until the afternoon of February 6th, when he came into the house, helped his wife prepare dinner, kissed her and the baby, and arose from his chair, went to his wife, laid her head on his shoulder as though to caress her, and drew a butcher knife across her throat, severing the carotid. Mrs. Schenk, an aunt of the wife, cried out to Busch: "Look out, the knife is sharp!" He answered as though surprised at her interference: "Let me!" Mrs. S. cut her fingers in trying to interpose her hand. When arrested he was bending over the corpse, looking into the gash, in which he had his fingers. Some said he had thrust a handkerchief into the wound, and that he grinned when asked why he did the horrible deed.

He did not sleep well in jail, talked and acted "queerly." Had an illusion of his cell mate being "Katy," his wife, and addressed him as such, trying to kiss him. Twice he attempted suicide in prison, once with his suspenders, and the second and nearly successful time with his bed sheet torn and knotted for the occasion. Artificial respiration and an hour's hard work restored him. He had *tinnitus aurium* and hallucinations of sight and

hearing. He told me that some said his wife was dead, but that as he heard her talking and singing to him he was puzzled and did not know what to believe. Evidently at times he would accept the statements of others, for he wrote to a friend to bury him next to his wife. At one time in jail he complained of a bone in his throat, and because there was none there, the newspapers published this as evidence of his pretending to be insane. He talked rationally when spoken to, and made no attempt to feign. Incarceration improved him, by cutting off his drink and regulating his habits. He was watchful of the court proceedings, and at times stolidily gave way to evident interest, just as it might in any other traumatic or paranoiac. He did not seem to be able to recall the events of his crime. His pupils were dilated, but responded to the usual tests as normal. Hearing was not impaired. Heart sounds feeble and its action sluggish.

The fact that he was capable of being controlled to some extent in jail by threats was urged as evidence of pretense on his part, when every asylum attendant, with or without warrant, uses this method effectually with troublesome patients.

Busch was said not to be insane because he had not the appearance of an insane person (the lay idea of the genuine article, derived from novels, being one with bristling hair, protruding eyes, and startling behavior). Apropos of this, a grand juryman doubted the insanity of a quiet, sensible-spoken woman in the county asylum, but remodeled his opinion when she returned to him with tinsel crown and other gew-gaws, introducing herself as the queen of song and tragedy. A negress was being sympathized with by another visitor as unjustly incarcerated, owing to her modest and rational behavior, when she launched a murderous kick which nearly ruptured his perineum.

The jury found Busch guilty, but sentenced him to the penitentiary for life,—a most illogical verdict, for were he sane, under the law wording, he should hang; and if insane, the asylum and not the penitentiary is the proper place for him. He should not have been liberated under any circumstances, if sent to an asylum. It was doubtless the expectation that he might escape from an institution for insane that inspired the verdict.

C., aged forty-eight, editor, has a large scaphoid depression

from removal of bones from the parietal summit of his head, necessitated by an accident. By extreme care during the twenty years of his misfortune he has escaped most of the usual symptoms, but is easily affected by heat and has a tendency to be angry over trifles.

A similar condition in another of about the same age is attended with outbursts of voluble mania of short duration during the summer.

F., merchant, about twenty-five, in a collision in which his head was hurt lost consciousness for about an hour, vomited the next morning, and suffered from sleeplessness and jerking of the limbs for a few weeks. A year afterward he grew irritable, had frequent headaches, but slept well. There is a scalp wound in the left forehead, and a wound under the eye of that side, each scar being about an inch long and inflamed in appearance; above the forehead scar there is numbness. He grew so insulting and irrational that his lawyers withdrew from his suit.

M. fell on the back of his head when eight years old, and was sunstruck when forty; soon after which he developed hallucinations of hearing and became suicidal and homicidal.

W. Forehead concussed; unconscious all of one night, vomited blood the second day, became irritable, sleepless, his memory failed, and he lost all business ability and suffered much from eyesight sensitiveness to light (photophobia).

E. An emery wheel explosion injured his left upper forehead, causing the loss of 8 square inches of skull bone. He at once lost his ability as a musician, upon which he depended for a living. Musical symbols no longer conveyed any meaning to his mind, and later he grew more demented.

M. Forehead concussed; suffered from headaches, eyesight blurring, defective hearing in left ear, sleep disturbance, memory loss, and irritability; restlessness often impelled him to walk long distances.

C. Occiput gashed; unconscious two hours, vomited four hours afterward for two hours, and was nauseated several days; sleeplessness lasted two weeks. Two years later right hemianopsia and memory impairment were the main symptoms.

H. Right occiput struck; vomited blood three days. A year after the injury she complained of sleeping too much, memory

impairment and hemianopsia. Her mind is gradually becoming enfeebled.

M. Piece of bursting emery wheel struck left parieto-frontal part of skull, leaving a deep scar after 2 inches of bone removed. He slept badly the first two years, and since the accident he stammers and stutters upon attempts to talk, which also bring on headaches, and he cannot make himself understood by speech. He is also growing demented.

H. Struck by piece of ice falling four stories, upon her left parieto-frontal part of skull; she was unconscious fifteen minutes, did not vomit, and a year after the hurt is sleepless, suffers constant headaches, twitching of the left eyelid; vision is blurred in the left eye; there is vertigo, inco-ordination, hyperæsthesia, memory impairment, irritability, and exaggerated knee reflexes, the stroke upon the left knee causing pain in the back. The right leg and arm respond to much smaller amounts of electricity than the left corresponding muscles.

E., a girl of fifteen years, was struck by a hammer upon the right temple; two years later she tends to imbecility, suffers incessant headaches, dizziness, eye troubles, sleeplessness, and forgetfulness.

M., nine years old, rendered imbecile by a brick falling upon his head injuring the right upper parietal skull. His school teachers state that there is a marked change in him for the worse; he is inattentive, irritable, fails to progress, obstinate, mischievous, sleepless, and complains of headaches.

G. when a year old concussed her head, and at fifth year is restless, incapable of instruction, does not understand words and but a few motions. She often places her hand to her head as though in pain.

L. has a depression one inch square from removal of bone in the posterior upper parietal region of the left side, occasioned by a fall. At first he was epileptic, but after the operation the convulsions ceased; but occasional *petit mal* attacks occur. He is at times impelled to destroy his clothing, and has been frequently arrested for breaking windows. He has frequent twitchings in his right arm and leg. "I had a fall from some scaffolding two years ago," he said, "and since then I have never been able to pass a window without wanting to break it. In Minnesota they

put me in the insane asylum for a year because I broke three panes of glass. I have broken over a hundred plate windows here, so I suppose they will never let me out. If I could only go to work on a farm where there were no houses I would be all right. I lose every job I get, because I cannot keep from breaking the glasses. I just take up a cobblestone and smash my fist through the glass until my hand is almost ruined."

Verity[1] narrates a case where the pain and heat appeared upon the side of the head opposite to the part struck, with mental degradation, drunkenness, hallucinations of hearing disagreeable in character. Three years after the hurt he struck and threatened to kill his wife; at this time he was sober. Two days later he committed suicide by hanging. Brower[2] observed three cases. One was an army captain, aged twenty-three, wounded in right parietal region, suffered from headaches and insomnia, and four years later became irritable, resentful, quarrelsome, and dissolute. His wife abandoned him on account of his conduct. He went to France and became conspicuous for his outrages as a leader of the Commune. He committed a murder and mail robbery. "The immorality was obviously pathological, and the case has in it the evidence of logical perversion." The second case, with heredity, hurt in the army upon the head, underwent character change, was quarrelsome and subject to fits of ungovernable fury, suspected his family of a desire to poison him. After an attack of epileptic convulsions, his delusions of conspiracy and suicide increased. He carried a knife and pistol for self-defense. The Catholic Church and clergy, to which he had been devoted, he especially regarded as persecuting him. He had attacks of fury, in one of which he killed his wife and then attempted suicide. The Illinois prosecution claimed the man's irregularities to be due to whisky. The judge instructed that if the insanity was the result of inebriety it was no defense, which resulted in the following verdict: "We, the jury, find the defendant guilty in the manner and form charged in the indictment, and fix his punishment at death by hanging. We also find the defendant insane at the present time." The prisoner committed suicide the next day. The third case, aged fifty, strong insane heredity,

[1] Amer. Journal Neurology and Psychiatry, May, 1882, 196.

[2] Alienist and Neurologist, Oct., 1883, 650.

known as "silly" and "crazy" among his companions, sustained a concussion at forty-two years of age and a year later another. He squandered his property, had paretic delusions of great wealth, boasted of being the third son of God, and in June, 1878, in a public place, in the presence of several persons, without warning or evidence of passion or excitement, he shot and killed his wife. Upon examination by Drs. Brower and Lyman he had pupillary inequality, nystagmus, fibrillary twitchings of muslces of face, back, thorax, and legs. The jail attendants stated that he slept scarcely at all, feared his food was poisoned, and refused it. E. P. Weber, the prosecuting attorney, conscientiously abandoned the case and the jury found the prisoner insane.

A county treasurer was found dead on the floor of his office with two pistol balls in his brain, one having penetrated the temple, and the other having been shot through the forehead. Other circumstances indicated that he had been murdered. His public accounts were correct, but he was personally somewhat embarrassed financially. To sustain a theory of suicide it was claimed that he could have fired both shots into his own head, the fact that such head wounds have not, in some cases, caused immediate death, being maintained, and that after such penetrating wounds the injured have sometimes walked about, and otherwise acted with some degree of intelligence. The medico-legal importance of such possibilities requires consideration of the extreme rarity of such instances. In the great multitude of cases of such shot wounds to the head and brain, consciousness is instantly destroyed; the bullet impact alone, without penetration, being usually sufficient, and revivals, if they occur at all, are, as a rule, after hours or days of stupor. The part of the brain injured should, in such questions, have full consideration by a competent brain anatomist and pathologist. Probabilities are strongly against the suicide theory in the above case.

CHAPTER XVIII.

DEGENERACY.

The grouping of individuals as degenerates, or the use of the word "degeneracy" as a pathological expression, may be criticised, if too rigidly applied, as including too many diverse conditions, such as epilepsy, senility, organic brain disease, or trauma; or forms of insanity in which recovery has occurred, such as the hysterical, climacteric, syphilitic, alcoholic, and others, which, while suggestive of at least a degenerative tendency, lack the permanency in all cases that would be implied by the word "degenerate" or "degeneracy." Any insanity may result in true degeneracy, while many do not so develop or terminate; and the same kinds of insanity may originate from a predisposition caused by degeneracy, or in the absence of such a cause. Many of the mentally infirm, whether insane or not, undisputably belong to such a group. The term is one favored by French alienists, and its prompt acceptance in general is some indication of its usefulness. For medico-legal purposes, especially, its boundaries must be plainly, if arbitrarily, marked by including what cannot be justly excluded, even though other things might have some claim to inclusion.

Morel[1] defined degeneration, in this connection, as a diseased deviation from a primitive type, caused by heredity, intoxication, want, improper food, miasma, nature of the soil, etc.

Physical degeneracy appears in arrested development of bodily organs; misshapen skull, want of symmetry of the head, microcephalus, hydrocephalus, high narrow palate bone, some teeth malformations, pigeon-breast, rachitis, hermaphrodism, branchial fistulæ, cervical auricle, supernumerary tragus, mammæ, digits or toes, legs, heads, etc. (dichotomy), parasitic growths and other vestigial structures. The grosser maldevelopments are associated with mental degradation, while the lesser imperfections or blemishes—such as "wine" or "mother's marks," hypospadia, and

[1] Traité des Dégénérescences Intellectuelles, Physiques et Morales de l'Espèce Humaine, 1857.

cryptorchidism—are not ordinarily accompanied by mental defects.

Among the lesser degenerates, Magnan, Regis, and the French alienists generally include the eccentric, the ill-balanced (*déséquilibres*), who are characterized by an unequal assemblage of deficiencies and excesses in their mental make-up. They are liable to caprice, the exhibition of cruel instincts, transitory excitement or depression, emotionalism, neuralgias, and hysteriform disturbances in earlier life, and, later, show lack of judgment. Some are perpetual-motion seekers, circle-squarers and visionaries generally; many may be apparently intelligent and capable, but mentally incomplete. They are seldom met with in asylums, as it is rare that their peculiarities exceed what is called harmless crankiness. Some religious enthusiasts, such as "fasters" and "healers," are of this type. Those with whom they live are more inconvenienced by their antics than are strangers. The great army of tramps contains degenerates of many kinds, from ill-balanced persons to terminal dements. Misers, recluses, victims of the gambling mania, and some drunkards, and many of the occupants of poorhouses, are of all degrees of degeneracy, from the slightly "cracked" to imbeciles and idiots.

Heredity is so potent as a source of all forms of degeneracy that it was at one time suggested that the insanity of degeneracy should be called hereditary insanity; but, aside from other objections to such a distinction, other things than heredity may induce mental degeneracy. Under the caption *Head Injuries* a class of defects termed *cérébraux* was mentioned, having peculiarities closely allied to those of the minor degenerates; and it was further observed that some of the sequelæ of scarlet fever, such as suppurative middle-ear inflammation, had resulted in depraved brain states. Tuberculosis and cancer in the immediate ancestry and in brothers and sisters have often been associated with mental degeneracy of all grades; but degeneracy may be acquired as well as inherited.

The mania, melancholia, paretic dementia, and paranoia induced by head injuries, differ from the insanities with those names, of the regular types, in being transitory or complicated with traumatic peculiarities; and the insanity of the degenerates bears in many respects a marked resemblance to traumatically induced

insanity; both degeneracy and trauma impeding, more or less seriously, healthy brain action.

Spitzka[1] states that where periodical insanity is not the outcome of an hereditary taint it is provoked by causes whose effects, like traumatic injuries and alcoholic excesses, may resemble the evil effects of heredity, and artificially produce a predisposition to nervous and mental disease. And that author further states that the theory that periodical insanity is the indication of degenerative taint is supported first by statistics, inasmuch as the majority of the patients have a bad family history; secondly, by the frequency with which somatic signs of degeneration, cranial anomalies, and other evidence of disturbed development, are found in them; and, thirdly, by the fact that the beginning of the disorder coincides with certain physiological periods, such as puberty and the climacteric, while the exacerbations often follow other physiological periods, such as menstruation. This, it is now generally admitted, is a feature of the degenerative psychoses.

When the histories of many poets and other writers disclose the insanity in their families and themselves, the superficial idea is often formed that genius is closely allied to insanity, but this is an error.

M. Arvède Barine[2] in articles on pathological literature treats of De Quincey, E. T. W. Hoffman, Edgar A. Poe, and Coleridge, as illustrating various forms of this literature, and details the peculiarities of Gérard de Nerval, who was throughout his life in and out of insane asylums in France as insane and "recovered," and who was one of the most popular of emotional writers in France, writing only during the exaltation of mania, and losing all literary ability in his "sane" periods. He became a demented vagabond, and committed suicide in a vile street. "His funeral was followed by a multitude in tears. It was a curious spectacle to see all the most distinguished men of Paris weeping like children. In Hoffman, De Quincey, and Poe we have seen that brilliant literary gifts may be allied with profound deterioration of intelligence. By excesses in opium or alcohol they were instrumental in extinguishing their genius. Gérard was born with a

[1] Manual of Insanity, 268.

[2] Revue des Deux Mondes, Paris, Nov. 1, 1897.

defective organization predestined to madness, and to his affliction his genius appears to have been due."

Lord Byron, Cowper, and Charles Lamb may be added to the list of literary lights with a taint of degeneracy. Genius is a high intellectual development, not necessarily linked with insanity. The emotional faculties in the fields of poetry, romance, music, or oratory may at times be insanely augmented and produce what are called works of genius, but deep reflective and reasoning abilities, as in the cases of Von Humboldt, Newton, Goethe, Shakespeare, Lord Kelwyn (Sir Wm. Thompson), Darwin, Faraday, Tyndall, Huxley, etc., are free from any suspicion of phrenasthenia, either in themselves or their progenitors. Whatever other literary pursuits may indicate in their successful cultivators, no scientific writer of eminence may be justly stigmatized as insane or degenerate.

Genius may be wholly independent of insanity, and even be present in some insane in spite of, and not because of, insanity; while in others, particularly of the ecstatic, erotic, love-lorn, verbose class of writers, what passes for evidences of "genius" may be insane ideation.

Cerebral neurasthenia is a division of degeneracy in which fixed ideas, morbid impulses, and paralysis of will power occur. Heredity is the main cause of cerebral neurasthenia; parental defectiveness often due to tuberculosis, alcoholism, syphilis, insanity, or nervous disorders. A few cases occur in which heredity is not traceable, but some predisposition otherwise is ascribed, or an exciting cause is assigned, as pregnancy, typhoid fever, excesses, mental strain, fatigue, etc.

Casque neurasthenique is the name of a special form of headache (described by some patients as though the head were "crushed") in this disorder. There is an empty feeling of the head, sleeplessness, inability to fix the attention properly, weariness, and bowel and circulatory disorders. These are called by Charcot the stigmata of the complaint which are most frequent, though a variety of other symptoms are observed at times. My patients have complained of pain in the back of the head or on the top of the head. While the intelligence is preserved the will power is impotent, and ideas become morbidly fixed. These are termed obsessions or besetments, impulses to do or not to do

certain things. The reasoning power and consciousness are intact, but there is anxiety and inability to resist the ideas. Authors are agreed as to the symptoms, though they sometimes group them differently under the various designations of "rudimentary paranoia," "Zwangsvorstellungen," "lucid insanity," "reasoning," and "impulsive monomania," etc.

Falret, in a report on obsessions to the International Congress of Mental Medicine, in 1889, stated that they are all accompanied with consciousness of the condition of the disease. They are usually hereditary, essentially remittent, periodical, and intermittent; they extend through an extensive range of the intellectual and emotional nature, are always accompanied by distress and anxiety, internal conflict, hesitancy in thought and action, and with emotional physical symptoms; hallucinations do not occur, and they do not change into other forms of mental disease, or terminate in dementia.

The fear of objects or of contacts is the most frequent obsession, of which mysophobia or rupophobia, the fear of contamination, is the most prominent division. Other fears are those of virus and poisons, of pointed objects, of glass, metals, and the down of fruits. Then there is the fear of places, the most common being called "agoraphobia," which is the dread of wide spaces; claustrophobia is the fear of narrow spaces; acrophobia, of high places; and there is a fear of thunder and lightning, astrophobia; of waters and rivers, potamophobia; and of fire, pyrophobia, etc., etc.

As these forms of fear are unlimited, Regis brings them together under—

1. Obsessions characterized by indecisions, of which doubting insanity is the type.

2. Obsessions characterized by fears.

3. Obsessions characterized by propensities or irresistible tendencies, such as onomatomania, kleptomania, dipsomania, homicidal, or suicidal impulses.

Obsessions of indecisions, known as the *maladie du doute*, *folie du doute*, or "doubting insanity," was named *Grübelsucht* by Oscar Berger, and consists in fixed ideas of interrogation, hesitation, and indecision of all kinds, from which the patient anxiously seeks relief.

Ball further divided the doubters into five classes:

1. The metaphysicians, who are haunted by abstract questions; they ruminate about the Deity, the Virgin Mary, heaven, hell, the soul, the future life, the world, and other obscure problems.

2. The realists, who constantly think of the shapes of things, the color of eyes, the beard, and often of coarse and disgusting matters.

3. The scrupulous, who have doubts about religious matters. They have "committed the unpardonable sin," laughed at mass, or offended God in some thought or act.

4. The timorous, who fear having committed some theft or indelicate action.

5. The counters are impelled to count objects they pass, as the lamp posts, the trees, the number of books in a room, the figures on the wall paper, etc.

Besides these there are people who are tortured lest they have left undone some act, such as locking a door, or turning off a faucet. Some pass hours in dressing themselves, uncertain that they are doing so properly, often undoing and recommencing without satisfying themselves that what they do is well done. The superstitious and fatalists who anxiously order their lives according to this or that insignificant event, Regis adds to the list. Persons, things, names, words, have for them a significance according to their appearance, which is fortunate or unfortunate, and they pass suddenly from terror to joy and the reverse, according to the presage encountered. The close association of the gambling mania with degeneracy is shown by the abounding superstitions prevalent among the wolves and sheep of the "sporting fraternity."

Obsessions of fear, or "phobias," include morbid repugnance of certain things, sometimes a fear of many different matters, panphobia; or of places, persons, animals, poisons, perfumes, diseases, and so on. Some persons have idiosyncrasies with reference to certain articles of food, such as fruits or milk, or against flowers, cats, or some other thing, animate or inanimate, which amounts to an obsession; but by simply avoiding the disagreeable object no further distress is experienced; but those with aversions due to neurasthenia always suffer more or less intensely from apprehensions that the dreaded thing will be encountered, even when there is no prospect of so doing.

The most frequent obsession of fear is *mysophobia*, the dread of being contaminated. Some of the sufferers from this disorder wash their hands hundreds of times daily, in futile attempts to obtain relief from a terror fully recognized by them as due to imagination. In their means of purification or disinfection they do not include the cleansing processes of ordinary people, as bathing or change of clothing, even though articles of apparel may be discarded as contaminated. Underclothing may be worn by them long after it has become filthy, an apparent inconsistency in behavior accounted for by dirt in general not being dreaded, while some special form of contamination is feared. The tyranny of such fixed ideas cannot be realized by those who have never seen an obsessed person.

Obsession propensities engage the motor rather than the sensory sphere; that is, there may be a propensity to do certain things against the judgment and what should constitute the natural inclinations of the afflicted person.

Onomatomania is the obsession of a name or word which is sought, or to which a good or bad influence is assigned, with an impulse to repeat the intrusive word by an ejaculatory effort, as though it were something to be expelled. When the word is merely sought without the tendency to utter it, the obsession is one of fixation of ideas related to the doubting malady; blasphemous or filthy words are suggested to the mind of some, and often uttered repeatedly and upon all occasions. "Coprolalalia" is the term used to designate such explosive utterances, a mental "tic" related to the bodily *tic convulsif*, such as sudden gestures, nose blowing, winking, scratching, sniffling, spitting, chest striking, almost incessantly habitual in some degenerates. Words and gestures are sometimes imitated or a quickly made command is instantly obeyed with no will power to do otherwise. These "tics" are chronic and generally incurable, though remissions may occur, and other obsessions may be conjoined.

Kleptomania is the conscious and irresistible desire to steal. Regis[1] states, what is generally known to alienists, that "tendency to steal may be encountered as a symptom in some mental affections, notably in paretic dementia, imbecility, dementia; but here

[1] Practical Manual of Mental Medicine; Translation by Bannister, 276.

it exhibits itself with the special characteristics of a neurasthenic impulsion. That is, it presents itself under the form of an obsession, accompanied with resistance and distress, and which causes the ordinary phenomena of paroxysmal attacks. The articles stolen are often insignificant; occasionally only one object, always the same, is stolen, and the patient accumulates most incredible collections of these."

The existence of such an irresistible impulse as kleptomania in persons who are recognized as sane is a matter of considerable medico-legal importance. That the propensity does exist and that it is ungovernable is known to alienists worthy of the name, though its existence has been denied by some insane asylum superintendents; in some instances owing to the fact that asylum physicians do not meet with such obsessed persons. Were such a propensity to occur in a poor or friendless person its discovery would most likely be punished as theft, pure and simple; but as the obsessed generally belong, as the Italian and French writers observe, to the educated and cultivated classes, it may be that kleptomania in the sane is confined to the so-called upper classes. Under any circumstances, society should be protected from the predatory, whether insane or not. But common humanity suggests that while preventive measures are justified, the propriety of punishment, regardless of possible uncontrollable impulse, for such offenses, should be well considered. Something in the heredity or by way of associated symptoms of cerebral neurasthenia might be present, as a *tic convulsif*, stigmata of degeneracy; or the testimony of some one in whom the obsessed person has confided his distress at the inability to control the impulse may elucidate matters. A patient during a mental disturbance that at times accompanies the climacteric grieved incessantly for months over having stolen 4 cents' worth of soap from a store. She had made more than ample money reparation, but her conscience overwhelmed her until she recovered her mental equilibrium, when surprise, amusement, and disgust, took the place of other emotions.

The Marquise de Fontenoy wrote the following to the Chicago Record of September 26, 1895:

"Speculation is rife in London as to the identity of the English duchess who, according to the annual police reports of the French

government just published, has been arrested during the last twelve months in one of the great Parisian emporiums for shoplifting, quantities of stolen articles being discovered about her person. Her Grace was subjected to the indignity of arrest and search by the police, and to the even still more intolerable ignominy of detention for forty-eight hours at the dépot, or central police station, among the crowds of drunk-and-disorderlies and criminals of every description who are assembled there previous to being brought before the magistrates. The Duchess was with great difficulty extricated from this disagreeable situation through the intervention of Lord Dufferin, the British ambassador, and only after the payment of a fine of $10,000, which has been devoted to the relief of the Parisian poor. The Parisian police, with the gallantry that belongs to their race, have had the commendable consideration to abstain from mentioning Her Grace's name in their published report. Unfortunately, however, the number of English duchesses is exceedingly small. There are not more than twenty of them all together, and they are such important personages that their migrations to and fro on the continent are considered worthy of mention in the newspapers, English and foreign. Now, there are only a few of the strawberry-leaf-coroneted ladies who crossed the channel to Paris last year; hence there are about three among whom the titled shoplifter must be. People are inclined to ascribe the identity of the kleptomaniac duchess to a lady twice-widowed, a commoner by birth, but married into a ducal house. It is well known that last year something happened which suddenly caused this until then frivolous lady to entirely change her mode of life, and to become very penitent, her days now being spent in fasting, prayer, and in the endeavor to do good to the poor. Moreover, she has abandoned Paris, once her favorite residence. Presumably it was the arrest and forty-eight hours in the police dépot that effected this radical transformation. Yet Her Grace may console herself with the knowledge that she is by no means the only lady of rank afflicted with kleptomania, or who has been arrested while engaged in shoplifting. The daughter of a reigning prince in Germany and some Russian princesses were detected some eight months ago purloining small articles in a Paris shop, and were only let go after paying heavy fines.

"Kleptomania is a form of insanity far commoner among the high-born and delicately nurtured classes than people realize, and inasmuch as Paris is the headquarters of everything in the shape of feminine elegance and articles of one kind and another calculated to tempt the purse and the wishes of the fair one, it is only natural that those afflicted with this moral ailment of kleptomania should find it most impossible to suppress on the banks of the Seine. Consequently the foreign embassies at Paris are put to a good deal of trouble in extricating their country-women from scrapes of the kind in which the English duchess above referred to involved herself."

Thefts are committed sometimes in the beginning of paretic dementia, and it has happened that convictions have followed and the insanity has proceeded to full development in the penitentiary, and the ignorant and unjust statement is made that the jailing caused the insanity, when in fact it existed before the arrest. Penologists would do well to study the insane departments of penal institutions, aided by experienced alienists. Epileptics may steal unconsciously, and dements do so unmeaningly. Senile dements pocket the property of others, sometimes claiming it as their own, or later showing surprise at the article being in their possession. Idiots and imbeciles have thievish dispositions at times. Puberty, senility, pregnancy, the change of life period, debility, the previous existence of insanity, typhoid fever, scarlatina, a head injury, or alcoholism, should have proper consideration as possible factors in the creation of any insane propensity. Consideration of kleptomania from many standpoints is so full in works on mental disease that it need be but mentioned that the older writers have not analyzed the stealing traits of the insane clearly; nor was kleptomania recorded as an obsession until the appearance of the more recent and accurate text-books on insanity.

Pyromania, or the inclination to set things on fire, is not clearly demonstrated as an obsession of the sane, and there is nothing in alienistic literature indicating that otherwise sane persons were ever disposed to incendiarism; rather, the opposite disposition is occasionally found in such persons,— pyrophobia, or the fear of fire. But pyromania is a well-recognized occasional propensity of the insane, most often found among imbeciles, melancholiacs, dements, paranoiacs, maniacs (chronic, acute, and

alcoholic), and occasionally among the epileptics and paretic dements. Regis[1] states that females are more liable to the propensity, and that may be the case in France; but John Baker[2] states that records of 103 persons admitted to the Broadmoor Asylum during 22 years, from 1864 to 1886, who had committed incendiarism, show that 95 were males and only 8 were females, and that English and German writers hold that pyromania is not a disease by itself, but the result of some of the well-known forms of insanity, and that genuine pyromaniacs are usually described as young persons, for the most part dwellers in the country, badly developed, of defective intelligence, hereditarily tainted with insanity or epilepsy, and presenting anomalies in character, habits, and feelings, having as a rule no delusions or motives for their crimes, but imbued with an irresistible impulse to burn. Revenge, or a desire to get into prison to escape want and exposure, is sometimes ascertained to be a motive, though in most cases forgetfulness is claimed and the culprit persists in saying that he does not know why he set the fire, suggesting the possibility of the act being that of an epileptic. In summing up the literature, Baker claims that pyromania is a condition frequently observed at the onset or after the development of puberty, when it is associated with the nervous disorders arising from the changes in the reproductive system at that period, and concludes that "incendiarism is a crime frequently perpetrated by weak-minded individuals from various motives, and for which they ought to be held responsible, and that it is associated with various recognized forms of insanity, especially imbecility and melancholia." Young children sometimes exhibit the propensity, but prompt punishment tends to stop the habit. Wharton & Stillé[3] conclude from an examination of the subject: "Not merely juridically, therefore, but psychologically, must we conclude that 'pyromania' has no existence as a specific and independent form of insane irresponsibility." At present, at least, alienists in the main are agreed that pyromania may exist as a symptom of many different kinds of insanity, but not as an obsession propensity, unassociated with insanity.

[1] Op. cit. 277.
[2] Tuke, Dictionary of Psychological Medicine, 1053.
[3] Med. Juris. I. § 616.

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Dipsomania, the irresistible tendency to drink periodically, has been considered under *Alcoholism*. It is a true obsession propensity due to degeneracy. An inclination to drink liquor to excess may also appear as a beginning symptom of ordinary insanities, such as paretic dementia, mania, or melancholia; and the liquor habit may be formed by all classes of degenerates, as well as by those who are not regarded as such.

Suicidal impulses are notorious among the insane, but Westcott[1] states that insanity was known to exist in only 20 per cent of the cases he investigated. Suicidal impulses are sometimes inherited, especially by the neurasthenic degenerates, as "homologous" and "homochronous;" that is, both parent and offspring may have similar impulses appearing at the same age in both. Neurotic persons, whether such through heredity, a head injury, alcoholism, or previous sickness, may commit suicide upon slight cause. Trivial causes may induce hereditarily neurotic children to commit suicide, impulsively or deliberately.

Homicidal impulses of the neurasthenic class of degenerates must be recognized as clearly distinct from homicidal promptings of the major degenerates, the phrenasthenics. Referring to the former, Regis[2] states that with them "the impulse to homicide proceeds in an identical manner by intermittent and paroxysmal crises preceded by melancholic prodromata. The patients are beset with the fixed idea of killing this or that person; for example, a child they adore. The sight of that child, of a weapon, a knife, arouses their obsession and plunges them into inexpressible torment; they realize that their wills are bending, that they are yielding to the impulse, and, filled with horror, they lament, flee from home, ask aid and protection of physicians, not hesitating in some cases to have themselves locked up in order to escape from their morbid penchant." An instance of the kind described at the close of this chapter was brought before Judge Gary, of a Chicago court, July 24th, 1889.

It is worth noticing that in the vast majority of cases in which the propensity to commit homicide has been present in persons otherwise accredited with sanity, the recognition of the impulse

[1] W. Wynn Westcott, Suicide, its History, Literature, Jurisprudence, Causation, and Prevention; London, 1885.

[2] Practical Manual of Mental Medicine, Translation by Bannister, 279.

has led the patient to adopt effectual preventive means; and such instances as the one where the killing was actually committed, related by Bucknill and Tuke,[1] are relatively rare, though the multiplicity of instances in which extraordinary means are sought by the patients themselves to prevent their carrying out their impulses would lead to the belief that one here and there had failed to do so, because of the suddenness of the onset, or for other reason.

Homicidal impulses are further mentioned on pages 97 *et seq.* of this book. Dr. Morton Prince[2] describes the case of a young lady with multiple obsessions, prominent among which was the intense desire to destroy her sister's child. She struggled with great distress against the impulse, and finally recovered. Her father died of phthisis.

A peculiar impulse to strike others, to throw whatever may be in the hand, or to violent and absurd actions, particularly when suddenly commanded, has been noted by several neurologists[3] under the various names of Saltatoric spasm, Miryatchit, Tic Convulsif, Palmus, the Jumpers of Maine, Gilles de la Tourette's Disease, etc.

Referring to page 188 of this book, we find a decision to this effect: "Evidence that the person on trial for homicide was subject to a peculiar mental infirmity, whereby if unexpectedly touched from behind, or in case of a sudden cluck or whistle from behind, he would become suddenly excited, lose all reason and self-control, and leap forward and strike the person nearest him, furnishes no defense, where at the time of the killing he had not been thus excited.'[4] Had this trial occurred in Maine or Canada, it is probable that physicians could have testified from direct observation of the disease in other cases. One thus afflicted cannot be regarded as mentally sound, and the liability of his disease to assume new directions should be fully weighed. Malays and French Canadians chiefly afford the patients of this

[1] Psychological Medicine, 4th ed. 257.

[2] Boston Medical and Surgical Journal, Jan. 21, 1897.

[3] Dercum, Nervous Diseases, p. 261; Hammond, Beard, and others; Journal of Nervous and Mental Disease, VII., 487, July, 1886, p. 487, June, 1891; N. Y. Medical Journal, Feb. 16, 1884.

[4] Thomas v. State, 71 Miss. 345.

class. A father has been known to throw his own child away, and a woman to strip off her clothing either by word of command or through imitating motions made by another.

Erotic or indecent propensities afflict many of the degenerates, such as Oscar Wilde. Krafft-Ebing[1] details scientifically, fully, and *ad nauseam* the acts of perverts of this kind. Eroticism is found among many insane, as paretic dements, alcoholics, and maniacs. Its recognition as a feature of senile dementia is of judicial importance, as it will account for occasional assaults of mentally degraded aged men upon young children.

It remains for future forensic psychiatry to record more thorough investigations into the known association of murderous propensities with sexual perversion. Such association exists in spite of the decision recorded on page 177 of this work.[2]

Whether Durrant, the medical student who was executed in California in January, 1898, for the murder of two young girls in a San Francisco church, was guilty, or the real criminal was not discovered, the circumstances point to a sexual pervert as the perpetrator of the crime. "Jack the Ripper," of London, proved to be a physician; and Holmes the multiple murderer, hanged in Philadelphia in 1895, was also a medical student. The anatomical inclination of these persons could have been based upon sexual perversion and mutilating propensities attracted to medical opportunities.

"Jack the Clipper" is the designation of one who has been clipping off the braids of young girls in Chicago for several years until finally caught. He claims to be unable to tell why he steals the hair, and there is nothing to indicate that he sold the braids. In January, 1898, another miscreant of this class tore a braid from the scalp of a young girl in Chicago. A sexual perversion, such as is connected with the stealing of women's shoes, is doubtless at the root of the impulse.

Notwithstanding the unpopularity of a suggestion that many ravishers, particularly negroes, act under uncontrollable impulses, their frequent brutal and unnecessary butchering of their victims, and other details of their horrible crimes, suggest a strong probability of insane impulse. But the usually prompt vengeance of

[1] Psychopathia-Sexualis, Translation by Chaddock.

[2] State v. Simms, 71 Mo. 538.

the community may be considered as equally insane and irresponsible. The liability of mobs, however, to impulsively destroy the wrong person should suggest that legal redress is wisest.[1]

Destructive propensities may amount to obsession, as in the case of Leoni, who after a head injury was impelled to break windows. Alcoholics during relatively sober periods sometimes have impulses to throw away valuables.

The impulse to throw one's self from a height is more common than is generally supposed, and has been said to afflict persons who are mentally and physically sound.

Acrophobia is a term applied to the fear of high places.

A clergyman who had been thrown from a buggy was never able thereafter to ride behind a horse. The idiosyncrasies against milk, fruits, and flowers, which in some persons amount to terror in the presence of such articles, are probably purely mental aversions classifiable with obsessions of fear.

Atoulic obsessions, or will-power paralysis, are the direct opposites of obsession propensities. One may be unable to rise when seated, or to ascend stairs; another may find it impossible to put on a certain article of clothing; some cannot speak or write their own names or some other word; some find it beyond their power to sit at a table, to open a door, or to enter or leave a room without assistance.

The fixed ideas of some of the obsessed, particularly the mysophobiac, are often so absurd, and their realization of the unreality of these dominating impressions is so acute, that they afford instances of insane delusions entertained by sane persons,—unless we broaden the usual definition of insanity. An insane delusion is held[2] to be "a false belief for which there is no reasonable foundation, and which would be incredible under the given circumstances to the same person if of sound mind, and concerning which his mind is not open to permanent correction through evidence or arguments." There would be difficulty in always determining whether an insane person would or would not entertain the same unfounded faulty idea if sane. The notions of the mysophobiac have no reasonable foundation; they are incredible

[1] See also p. 100 of this work.

[2] Kimberly's Appeal, 68 Conn. 428, 37 L. R. A. 261.

at all times to the patient, who does not need arguments to convince him of their absurdity; somewhat as superstitions may abide with intelligent persons, at times inducing acts of which they are ashamed.

The Chinese are taught that their Emperor is the "Son of Heaven," that his knowledge and power are unlimited. The Japanese have been arguing with them forcibly on this point. Intelligent, educated Parsees of Bombay, many of whom are very wealthy and have traveled extensively over the world, believe that baptizing with "nerang" (cow's-urine) protects them against evil influences. The Parsees can retort with instances of occidental beliefs that are more absurd or insane from their point of view. But insanity itself remains to be accurately bounded. One decision is so comprehensive[1] that it includes every species of mental unsoundness and drunkenness. It may be suggested that a headache constitutes a form of mental unsoundness. No definition is unassailable.

Obsessions in general are incurable in direct proportion to the degeneracy upon which they depend. Confinement does no good, while recoveries have taken place from no apparent cause, or after traveling, or after the judicious use of electricity.

Phrenasthenia. A large number of the insane, in and out of asylums, were formerly called mixed cases, and often defied classification. They seemed to alternate and commingle the different forms of insanity, so that the maniac of one day would be the melancholiac of another day; and a fairly defined paranoia would be succeeded by imbecility in the same person. The elucidation of this morbid condition, now known as "phrenasthenia," is due to Magnan and his pupils, and consists largely in recognition of the fact that numerous degenerates, or individuals with vices of organization, do not become insane like other people, and that their insanity presents special characteristics of its own. The term "insanity of the degenerates," or "phrenasthenia," was found to be most convenient as indicating the general mental infirmity. It is usually hereditary and congenital. As Regis states, the insanity in ordinary lunatics is everything, but in phrenasthenia it is only a secondary phenomenon, superadded and often episodic. The vice of organization is the background upon

[1] Gunter v. State, 83 Ala. 96.

which insanity may appear, and this defectiveness consists in the bodily and mental stigmata. These deviations and malformations are often more pronounced than in the cerebral neurasthenics.

Among the idiots, imbeciles, and paranoiacs belonging to the degenerate types of humanity, anomalies of the skull, face, ear, palate, and genital organs are more frequently found, with more or less mental defect coexisting, but sometimes with mental abilities normal or even in excess.

The criminal degenerates specially investigated and described by Lombroso, Manouvrier, Sergi, Garafalo, Tarde, and Lacassagne, may possess any of the stigmata common to phrenasthenics and other degenerates, the most frequent being abnormally long arms, facial asymmetry, prominent cheek bones, and superciliary arches, large lower jaw, presence of the suboccipital fossa, and lemurian appendix.

In an article entitled "The Sulcus of Rolando as an Index to the Intelligence of Animals,"[1] I called attention to the fact that the medulla oblongata occupied a more erect position in the higher scale of animal life, and that the fissure of Rolando was placed farther backward in the ascending scale of intelligence; and at a meeting of the Chicago Academy of Medicine, March 13, 1891, I demonstrated[2] that there was an adaptation of the occipital bone to the angle formed by the medulla and brain. A series of skulls arranged from greater to less angularity of the basi-occipital or basilar process of the occipital bone would indicate a descending scale of intelligence, and a corresponding inclination of the pharynx could be observed. Hence I would add to the stigmata of degeneracy that peculiar form of the pharyngeal vault that is due to less obliquity of the basi-occipital.

It is important to remember that physical degeneracy does not necessarily entail mental degradation, and that criminality and insanity of degeneracy, separately or together, may exist without demonstrable stigmata.

The typical phases of ordinary insanity, with periods of development, climax, and decline, do not occur, as a broad rule, in the degenerates. Most diverse manifestations of exaltation or depression, with or without delusions and hallucinations, may appear,

[1] Journal of Nervous and Mental Diseases, April, 1880.

[2] "Science," New York, Oct. 21, 1892.

combine, or alternate. Sudden recoveries from insanity take place with them, but relapses are always likely to occur.

The bad heredity of all kinds of degenerates may consist of either mental or physical taints in the ancestry. Tuberculosis, uterine cancer, migraine, hysteria, epilepsy, and alcoholism are common in the direct or collateral line; or the individual may have sustained a head injury, or have suffered from suppurative inflammation of the middle ear, or from alcoholism, sufficiently to institute degeneracy in himself. Nor is any special class exempt. It is as rife among the so-called "higher classes" as elsewhere. Kings, emperors, the nobility, millionaires, are as liable as the pauper. The admirable analyses of W. W. Ireland[1] go to show that Joan of Arc, the Claudian-Julian family,—Augustus, Julia, Tiberius, Caligula, Claudius, Messalina, Agrippina, Nero, Domitian,—several of the Czars of Russia, and the royal family of Spain, were degenerates of pronounced types. Near Vienna the suburban private lunatic asylum of Doebling receives constant accessions from the ranks of royalty, such as the Princess Waldemar of Denmark; her sister-in-law; the mother of the Empress of Germany; and the Austrian Empress's sister, the Duchess of Alençon. Princess Waldemar's mental derangement is attributed to the abuse of morphine working upon a constitution neither physically nor intellectually sound, the Princess being, like her equally erratic sister and brother, the issue of a union between first cousins. King Ludwig of Bavaria was a paranoiac who committed suicide when taken into custody, and his brother Otto, who succeeded him, roams demented about the dismal palace of Fuerstenried on all fours; his uncle, Prince Luitpold, acting as regent. Emperor Ferdinand, uncle and predecessor of the present ruler of Austria-Hungary, is a dement from epilepsy, which is the curse of the House of Hapsburg; and he was compelled to abdicate because it had become impossible for him longer to conduct the affairs of state. King Frederick William IV. of Prussia, elder brother of old Emperor William, and granduncle, therefore, of the present sovereign of Prussia, died insane, the result of middle-ear suppurative inflammation. The former King of Würtemberg and the late King John of Saxony were insane, the latter violently

[1] The Blot Upon the Brain; Studies in History and Psychology. Edinburg, 1885.

so. Sultan Murad was deposed as a lunatic and confined at Constantinople. The Empress Charlotte of Mexico, the sister of the Belgian King, Leopold II., lost her reason in 1867. George III. was officially acknowledged to be insane, while King William IV. was accused of imbecility. Empress Elizabeth of Austria has been at times "eccentric to the verge of insanity." The elder brother of the Grand Duke of Baden was deposed on the ground of lunacy, and the Queen of Roumania, after ruinous extravagance, was confined as insane. Old King William of Holland, the father of Queen Wilhelmina, was violently insane two years before he died. His Russian grandfather, the Czar Paul, was a dangerous lunatic. A madman may infinitely prefer to be an ordinary individual rather than a crowned head; he has a far greater chance of preserving his life. Thus, Emperor Paul was murdered by his chief officers, his three sons being notoriously implicated in the assassination, the eldest son and successor conferring the title of prince upon the Count Orloff, who had strangled his father.

It is worthy of note that with all the intermarriages that have taken place among the reigning houses of Europe, and the frequent unions between first cousins and between uncles and nieces, there are so few instances on record of physical deformity on the steps of the throne. The Marquise de Fontenoy[1] investigated the subject, and reports that with the exception of the Italian House of Savoy, which furnished a hunchback every second or third generation, the last one being Otto the Duke of Montferrat, it is necessary to go back to the Reformation, to King Richard III. of England, to find another hunchback. Don Sebastian of Spain, the father of the Duke of Durcal, has misshapen legs and shoulders.

Among degenerates who cannot accurately be classified as paranoiacs or as imbeciles, but who possess peculiarities of both, are those described by Pinel as "turbulent, indocile, quick to anger, committing outrageous acts which they are always ready to justify by plausible reasons, and who are to their families, their kindred, and their friends continued subjects of anxiety and grief. They are continually doing wrong, either by neglect, by

[1] Chicago Record, November 14 and December 9, 1895.

malice, or by wickedness. Incapable of mental or physical application, they destroy, subvert, and unsettle everything with which they are brought into contact and which they can injure." The term "reasoning monomaniacs" was suggested by their ability to reason plausibly, but neither this name nor *paranoia sine delirio*, also proposed, distinguishes such patients as well as their recognition as degenerates whose troublesome or dangerous propensities resemble imbecility or paranoia, while neither term strictly or accurately describes them.

Paranoia, signifying logical perversion, has generally misplaced the antiquated term "monomania," which not only implied that the delusion was restricted to one subject, but was otherwise insufficient and misleading. The memory, emotions, judgment, and conceptions appear, in some cases of paranoia, to be unimpaired in most directions, while in regard to certain delusions entertained all these mental divisions may be involved. For this reason the designation "partial insanity" was at one time used by alienists, but too many arbitrary meanings were associated with the use of the term, and it has been abandoned.

Verrücktheit, of the Germans, included the generality of paranoiacs of the more demonstrable degenerate type, while *Wahnsinn* was used to describe paranoiacs who became such after melancholia or mania; but as in both cases congenital or acquired degeneracy is at the root of the disorder, there is small justification for separate names, except that the *Wahnsinn* form of paranoia is more curable. Mendel, however, held that prognosis should not be made the basis of classification. The French describe paranoia under the names of "progressive" or "chronic," "systematized" or "systematic" insanities; and Magnan divides it into a kind that evolves in distinct periods, corresponding somewhat to *Wahnsinn*, and another form that is irregular and atypical, essentially the paranoia of degeneracy. The Italians also separate paranoia into the degenerative, having early or late development, and the pyscho-neurotic, appearing as a primary or secondary insanity. The entire matter may be simplified by the statement that paranoia is an insanity of degeneracy characterized by logical perversion, the tendency to which is usually inherited, in such cases manifesting itself early or later in life. In a minority of instances it may appear as a primary disorder from a

sufficient exciting cause; or it may occur subsequent to mania, melancholia, or some other insanity; and the prospects of recovery from paranoia are in direct proportion to the absence of the graver evidences of degeneracy. The primary, acquired, and the secondary from other insanities, afford better chances of cure than the late or early (original) transmitted forms, in the order specified.

Ball, Magnan, and Regis deny the possibility of dividing the clearly degenerate type of paranoia into developing stages similar to those of ordinary bodily diseases, further disclosing the degeneracy to be the real background and the insanity in such cases to be episodical. The Italian alienists' claim, that every case of paranoia is due to degeneracy, through ancestral or acquired taint, appears most reasonable, and enables us to confine further discussion to the more curable kind, which has more or less regular periods of development, and to the more numerous incurable paranoiacs in whom the disorder is not separable into definite stages of progressive development.

When paranoia develops by progressive stages the exciting cause may be very slight. This in itself would point to a predisposition, or heredity, as the real cause, the exciting cause being only an apparent one; distress, difficulties, a physiological climax, often precipitating the insanity. It is more frequent in females, celibates, and the illegitimate, and among the gloomy, irritable, and misanthropic.

Uncomfortable sensations due to irregular blood supply, and causing headaches, heart palpitations, eye and ear difficulties, or abdominal troubles, such as are common in hypochondria, precede the insanity, may be its origin, as they set the patient to pondering over his ailments and lead him to conclude that they are brought about by enemies. He refers everything to himself, and casual glances and motions of others are interpreted into deliberate observation and significant signs. He concludes that many enemies are banded against him, and finds verification in certain events he had heretofore considered unimportant. Hallucinations of the senses may accompany or follow this stage; he hears cries, bells, explosions, and is startled by hearing his own thoughts spoken aloud; there may be false odors, tastes, touch impressions, or sexual sensations. Sometimes disagreeable things

may be said to him in one ear and pleasant words are heard in the other ear. Hallucinations of sight are rare, and not well defined if they do occur. He complains of smelling and tasting poison, such as gases, sulphur, arsenic, etc., and may therefore refuse to eat; or he asserts that he is burned, twisted, and otherwise maltreated; that gas is blown into his bowels, foreign bodies are placed in the sexual organs, that he is outraged, sodomized, masturbated, his semen is drawn off, etc. They often write to or visit the chief of police or the mayor to have the persecution stopped. Consistently with their beliefs they may change residence to escape their persecutors, or hide themselves; but they find themselves hunted out. Finally, from generalizing their enemies they advance to the more dangerous point of singling out someone for attack as the originator or head of the conspiracy against them. They may either seek out a certain individual, or, under the influence of an hallucination, attack the first person met. As Regis[1] says: "It cannot be too often repeated, that equally with the epileptics, and possibly even more than these, the persecutory insane are, of all lunatics, the most dangerous. The greater part of the crimes committed outside of the asylums by the insane, and nearly all those committed within them, are to be credited to this class. Moreover, it is not only homicides that they commit; they may attempt arson, poisoning, and occasionally, contrary to general opinion and in exceptional cases, suicide. Whatever their acts may be, they very frequently assume the impulsive character." Aside from this intellectual twist, the patients are otherwise in full possession of their mental faculties; that is, they act apparently in all things as sane persons might be expected to do were the alleged persecutions and conspiracies against them real instead of imaginary. The delusions take more and still more definite shape, become "systematized." In argument they are sometimes prolix and very consistent in proportion to the education they may have. Finally certain words or expressions (a pathological language) are adopted to designate persecutors or to express delusions, and indicate a chronic state from which there is no recovery.

Their manner is usually, though not always, surly, as, if you

[1] Practical Manual of Mental Medicine, 227.

speak to them they may imagine they hear you say offensive things, and they naturally resent your abuse, or they fancy that you can read their thoughts. While some make public their grievances by speech or writing, the majority are reticent, apparently talking to themselves, but in reality holding converse with voices, at which they shake their heads, frown, smile, or sometimes act demonstratively. They become to some extent passive in their afflictions, just as do many sane persons who labor under misfortune; but the liability of paranoiacs to act impulsively and unexpectedly makes them dangerous patients.

After months or years something suggests to the patient that he is an exalted personage of some kind, and he may ascribe all his persecutions to diabolical or divine sources. Mystic delusions appear, more often accompanied with visual hallucinations than in other forms of paranoia. There is a resemblance to hysteria in this particular. These mystics may commit criminal acts based on their delusions or hallucinations. They may preach itinerantly, and attack this or that enemy of "the true religion." They have been known to imitate the sacrifice of Abraham and thus destroy their own children. Sometimes they imagine themselves to be Christ, the Virgin Mary, or God. Or the paranoiac may become erotic or jealous, instead of taking a religious direction, and his persecutory delusions may lead him to think that his wife is being tampered with, and he may therefore load her with abuse or inflict violence upon her. A political direction may be exhibited by some, and they are under constant fear of imprisonment for differing with those in authority. Notorious regicides or slayers of politically prominent persons are of this class.

Megalomania is a terminal dementia stage of paranoia, in which belief in personal greatness overshadows the persecutions suffered on account of that greatness. The intense egotism, haughtiness, and insolence of these "monomaniacs of pride," as some older English alienists called them, are shown in their struts, superciliousness, stiffness, condescending manners, or by their decorating themselves with ribbons, tassels, strips of colored cloth, medals, plumes, tinsel, or some other flashy article. The hair or beard may be arrayed in some striking way. This "ambitious insanity" may last indefinitely until the grosser final dementia obliterates all that characterized it. Terminal dementia

may last in such cases twenty-five years or longer, rupture of a bloodvessel in the brain often ending life. The length of the stages varies, so that in one the hypochondriacal stage may be very long, or so short that the megalomania seems primary. Abbreviation of the persecutory or other stages may occur. It is only in the early stages, before the delusions become fixed, that recovery occurs, and even then only in rare instances.

The preceding types constitute the so-called typical paranoiacs, or those whose evolution proceeds by more or less well recognized gradations. Under "phrenasthenia" Regis considers the atypical paranoiacs, or those whose insanity springs directly from a vice of organization, and who may be also subjects of mania, melancholia, or other mental derangement, which may begin and end suddenly, the delirium being less and the lucidity greater, but relapses constantly impending. With them melancholia and mania may be intermingled, succeed one another, or alternate, so that periodical and circular insanities are classified by some writers as insanities of the degenerate. The paranoia of these phrenasthenics often has the different phases entangled and confused; delusions of grandeur and persecution may coexist; or the ambitious ideas may precede the persecutory ones; or the mania or melancholia may afford the starting point for mystical or sexual notions; and at any time the more obvious insanity may disappear, which does not occur in the paranoiac who has regular periods of development. As Saury says: "It allows no regularity; the lack of method replaces the plan; absence of preparation takes the place of progressive march. The most diverse manifestations may appear, combine, or alternate without any formal evolution. Far from indicating systematization and chronicity, the ambitious delusions lack all character and may disappear to-day or to-morrow."

This paranoia of degeneracy is also likely to assume an aspect peculiar to itself. The delusions may be vivid, starting from false or misinterpreted *data*, but quite logical deductively. Hallucinations do not usually exist. The delusions do not change, but expand and take the direction of obtrusive claims, often aggressive and dangerous; and patients of this kind are incurable notwithstanding frequent remissions. Their lucidity and the logical nature of their delusions have earned for them the name

of the "reasoning insane." They have also been called "persecuted persecutors," on account of their occasional violent methods of asserting their fancied rights. The public may regard them as victims of injustice who have become embittered, and weak-minded friends of the paranoiac may share their delusive ideas,—a circumstance known as communicated insanity, or *folie à deux*. These hereditary degenerates, often with marked mental or bodily imperfections, egoists, arrogant, malicious, greedy of notoriety and popular attention, are dangerous because their delusions are plausible and lead them to the commission of serious crimes. They are capable of division into the same forms as the typical paranoiacs: persecutory, ambitious, litigious, erotic, mystical, and religious types; but the degeneracy destroys the serial order of development of the insanity, and constitutes them "cranks" indeed.

Persecutory cases. Delusions of being persecuted appear suddenly, instead of gradually, as in the progressive paranoia, and without hallucinations. The patient construes slight grievances as grave ones, and at once he is a persecutor by retaliation, and is apt to become a nuisance with his complaints, protests, and denunciations. There are no limits to his appeals for justice. Often he annoys the authorities with reams of accusations, charges, complaints, and explanations; sometimes he writes to the newspapers or posts handbills concerning the conspiracies against him. Any recognition, however slight, if made only for the purpose of getting rid of him easily for the time being, makes him more offensive and exacting, as he considers that his rights have thus been conceded. It is a dangerous thing to make even indefinite promises to such a person, for poverty, rebuffs, failures, and his fixed ideas combine to make him resort to threats and then to crime. Occasionally a paranoiac fires a pistol into an assembly, explaining that he wants to attract attention to his case and secure justice. One shot from the gallery of the Chicago Board of Trade into the dealers below, wounding several persons seriously; and another singled out a member with whom he had previously had unfortunate dealings, and stated that he fired the pistol to obtain a standing in court and be able to ventilate his wrongs.

Hastings, a degenerate of insane ancestry, killed a real-estate dealer in Chicago, whom he accused of having robbed him of

all his possessions. That there is such a thing as tampering with fire is suggested by this incident. Even though the degenerate may not be a paranoiac, or have any very well-defined species of insanity, and facts instead of delusions may be acted upon by the mentally unbalanced, he is apt to develop all the cunning, deliberation, and dangerous offensiveness of the paranoiac upon the basis of a real injury, as well as upon one that rests wholly on delusion. The phrenasthenic may develop any sort of insanity, or mixed forms thereof, upon even slighter provocation than that of being dispossessed of all his property.

Ambitious cases resemble the persecutory paranoiacs, with the addition of grand delusions respecting themselves. They are entitled to great fortunes which are unjustly withheld; they are the offspring of exalted persons who disown them; they are Messiahs or kings who are discarded by the people; great inventors who could enrich anyone who bought stock in their exploit; or they lay claim to some official position, and may kill the person who fails to give the place to them.

Prendergast, the newsboy, was a degenerate with bodily stigmata, of the ambitious persecutory type of paranoia, who killed Mayor Harrison of Chicago for failing to appoint him to the office of city counsel. In some short interviews Prendergast had obtained with the mayor the lunatic got the idea that he had been promised the place. His dominant idea was that God had commissioned him to have the railway tracks of the city elevated, to prevent further grade-crossing accidents. Prendergast had but little education, but he felt himself competent to fill a city attorney's place. Though his life was proved to be that of a paranoiac and his heredity was bad, he was promptly executed as a murderer.

Guiteau also, with his misshapen skull and brain (as reported upon by Dr. W. W. Godding, of the United States Government Hospital for the Insane, in Washington, D. C.), and with the career of a paranoiac of the ambitious kind, who had written a "Companion to the Bible" and hoped to increase its sales, and also to unify the Republican party by slaying President Garfield, was found upon jury trial to be sane and responsible, and suffered the extreme penalty for his offense. Dr. E. C. Spitzka testified

to the insanity.[1] Guiteau's father was mentally defective. His mother had been for eighteen months prior to the prisoner's birth troubled with a brain affection. Of her two younger children one died of phthisis, and the other was deformed and died soon after its birth. John M. Guiteau, a brother, was an insane degenerate. Mrs. Scoville, a sister of Guiteau, was subsequently declared insane by an Illinois jury, and there was insanity among uncles, aunts, and cousins. Guiteau had joined the Oneida Community, and later brought suit against it and the New York Herald. He had erotic delusions, was a religious and political reformer, and a megalomaniac generally. In jail he exhibited the "insane manner" so familiar to those in control of insane asylums. He believed that he could slay the President, and not only escape punishment, but that a grateful nation would reward him by ovations, wealth, and applause for a meritorious act; that if he were made a martyr he would be exalted next to God himself, and that finally a monument would be erected to his memory, and his "Companion to the Bible," which was plagiarized from some Oneida Community fulminations, would be universally distributed.

Both Guiteau and Prendergast attempted to conduct their own defense, often interrupting the court proceedings with insane questions, suggestions, or invectives. Sometimes these degenerates of the regicidal class resent being defended on the ground of lunacy as an insult to their "mission," or contemptuously acquiesce as a probably necessary legal dodge for their acquittal. The degenerate or "phrenasthenic" (which amounts to the same thing) Hastings sat silent during his trial, and pretended to be melancholic, but brightened up immediately after his acquittal, felicitating himself upon the success of his "insanity dodge,"—an instance of simulation of insanity by the insane.

In England when the sovereign is assaulted the dignified assumption that only a lunatic would do such a thing results in speedy and quiet investigation by competent alienists and officials and the holding of the insane person "during the royal pleasure." It does not follow that every such attack is made by an insane

[1] Alienist and Neurologist, April, 1883; also article by Dr. J. H. McBride in the same quarterly journal, October, 1883.

person. Every instance should be judged by itself. President Carnot's assassin, an armed anarchist, may have been a degenerate of the criminal type, one that may usually be held in check by regarding him as responsible for his acts. The paranoiac considers himself above the law, and often expects divine intervention against his persecutors, or is impelled to crime commission, no matter what the consequences may be.

Litigious cases, with mania for disputes or lawsuits, the *Querulanten Wahnsinn* of Krafft-Ebing and other German alienists, beset the courts for redress. They claim heavy damages for libel or false imprisonment. Legrand du Saulle describes this form fully.[1] A case of Pottier[2] being that of a young woman who brought suit against the municipal commune of St. Ouen in reference to work on a sewer which affected her dwelling. She wrote to the ministers, circulated printed demands, accused the courts, the police, and the "coalition of dishonest persons leagued against her." She finally extended her demonstrations to President Grevy and the deputies. Her husband in sharing her delusions afforded an instance of *folie à deux*. For some years a degenerate of the ambitious and litigious order annoyed the county commissioners and the judges of Chicago courts with his incessant threats and complaints. Marian Leonard also became notorious in attempts to escape a conspiracy of persecution, and once through an accidental default secured for the time being a judgment of several thousand dollars against the city of Chicago for some fancied injury. She finally subsided into terminal dementia in the county asylum.

The mystics have an instinctive tendency to religious enthusiasm, and may gradually develop a religious system for universal use. Their positive convictions, appeals, and writings often influence numbers, and defectives fall in with them, here and there, ready to lay down life in the service of their leader. This class is apt to combine hallucinations or "visions" of the Deity, the Virgin, or saints, or interpret vivid dreams of such sights as real. Swedenborg and many sect originators of old were of this kind. Louis Riel, the political disturber of British North America, who

[1] Annales Médico-Psychologiques, 1878.
[2] Regis, op. cit. 296.

was hung in 1885, had been twice previously confined as an insane person. Political and religious phrenasthenia or paranoia amount to the same thing, the difference being in the direction of their delusions. Some of the "regicides," a name given by Regis to fanatics who, apart from any sect or conspiracy, have attempted the assassination of a monarch or ruler of their day, are of the mystic order of paranoia. They believe themselves called to fill the double role of agents of justice and martyrs, and attempt to destroy some great personage in the name of God and their country. A negro paraded the streets of Chicago for years dressed in a black priestly garb, with a cross surmounting his cap and a Bible in his hand, denouncing the crowds as doomed to destruction. In the intervals of his demonstrations he worked fairly well as a restaurant waiter, but finally became too offensive to be allowed his liberty any longer.

It is not possible to rigidly classify certain paranoiacs as belonging to this or that or the other special type. One form may be prominent for a long while, and the megalomaniac may become either a political or a religious reformer, or several kinds of paranoia may blend in the same person. A patient in my practice, whose father and sister were insane, has for ten years maintained the hypochondriacal stage of paranoia, with two attacks of agitated melancholia, or as near to such an insanity as the degenerate usually approaches.

Folie à deux, or communicated insanity, the delusion of one insane person being shared by another, has been divided into "simultaneous," when it appears at once in two predisposed persons; "imposed" when it is absorbed by one patient from another; and *folie gemellaire*, or the insanity of twins, occurring simultaneously. At the Elgin, Illinois, Insane Hospital, two brothers alternate insanity and take turns in their incarceration and liberation. They are alcoholic, and heredity is not conspicuous. At another asylum a daughter was frequently visited by an insane mother who shared the delusions of her offspring. In 1882 three phrenasthenic sisters in South Chicago agreed to hang themselves to escape an imaginary conspiracy concerning which they were equally deluded. Two succeeded in committing suicide, and the third was secured and sent to an asylum. They had nailed up doors and windows, and for weeks had lived in a

state of seige, with barely sufficient provisions. The then recent invention of the telephone they considered as particularly designed to spy upon their thoughts and acts.

Paranoiacs are to be found in every stratum of society; among the miserable or the wealthy, the powerless or the influential. Their vagaries may be of every grade, from unimportant harmlessness to criminality, and even murder. Some are vegetarians; others discover that by dividing the circumference by four they have squared the circle, and proceed to inflict their surprising discovery upon universities, scientific societies, or prominent mathematicians. Inventions, that are not always worthless, have been exploited by some. A starving sensationalist, one who proposes to go without food for forty days, is often a paranoiac, if a male, or a hysterical case as frequently, if a female. Complicated machinery has been constructed by paranoiacs to enable them to commit suicide. There are two "heavens" near Chicago, one a farm and the other a block of buildings in which rival Messiahs have congregated many followers, mainly emotional females; and both of these "Christs" have secured large amounts of money from the gullible. A club-footed degenerate made large sums by operating on the rectums of credulous victims. He claimed to be able to cure almost any complaint with his "orificial surgery." He is half educated, is a fair anatomist, and a very skilful persuader. "Sir" Timothy Dexter, mentioned in Appleton's Cyclopædia of American Biography, was a noted Massachusetts megalomaniac of means, who assumed the title of "Lord," kept a poet laureate, covered his mansion and grounds with minarets and statues of great men, of whom he rated himself the highest. He was aggressive, and once shot at an employee who opposed him in some trifling matter. Vines, a Chicago paranoiac, after embezzling some money, attempted to escape in a trunk. By other and less uncomfortable means he would have succeeded; but this class of patients often resorts to absurd expedients to accomplish their end. Otto Funk, a student, proposed blowing up the old Chicago University because some girl had repulsed him, and he dug a trench a couple of hundred feet long through which he passed a strong wire leading to a hiding place where he could pull the wire and drop the girl into a trap he had built at the other end of his contrivance. When asked why he

should have gone to all this trouble when he passed the girl often in the University halls, and could have kidnapped her, he said that it did not occur to him. He wanted to brand some ridiculous letters on her forehead by way of revenge for her antipathy to him. He stole large quantities of books from the Chicago Library and Cambridge, Massachusetts, Theological School, and finally committed suicide with morphine.

Another paranoiac passed forged checks upon the clerks of the Wellington Hotel, in Chicago, and, notwithstanding he strutted around in the uniform of a militia major, to which he was not entitled, and other evidences of his megalomania, a county-court jury refused to believe that he was insane. He had lied about his mother's persecuting and robbing him, and the jury were impressed with his plausibility. The forgery charge was not in issue against him except as evidence of insanity; the question of sanity was the only one. Two celebrated tragedians who died in the latter part of the nineteenth century were paranoiacs, their megalomania finding considerable gratification in the stage parts they assumed. Both were brutal to their wives and were transgressors in other ways. The originator of the "Credit Mobilier" and of the scheme of the Union Pacific Railroad was a notorious paranoiac who accomplished great financial undertakings in his prime, but who finally drifted to terminal dementia. Henry Adkins, a paranoiac, in 1891, fired off a pistol on the floor of the Board of Trade to secure his arrest and enable him to recover $10,000 he had lost in speculation. The climacteric precipitated paranoia in a wealthy lady with a large family. She abused her children, and wrote letters to notables complaining of the persecution she fancied she was undergoing. Her paroxysms of excitability and volubility were about monthly. Some neighbors espoused her cause, and much unnecessary litigation, recriminations, and expense resulted from the ignorance of officious persons who sought her release from an asylum. The question of testamentary capacity is involved in this case, as she proposes disinheriting all her children; and similar instances are not uncommon.

Paranoiacs may commit larceny or other aggression against the rights of others, such as obtaining goods under false pretenses, their insanity not being recognized by those who trust

them. Mrs. Green conducted an art gallery on a large scale in Chicago, and cleared $50,000 by the transaction; but many who had intrusted valuable paintings to her, for sale on commission, claimed that she had sold them for less than their value, and that they had been defrauded in other ways. She became too insane to be at large, and was restrained. During her asylum sojourn, real-estate dealers to whom she had given a trust deed invested her property so judiciously that there was nothing coming to her upon her liberation,— suggesting that paranoiacs may suffer from genuine wrongs as well as imaginary ones. In spite of her insanity the court maintained her competency to convey property.

Spitzka observes: "While attention has been called by more than one of the classical writers on insanity to the fact that the intellectual faculties in this condition may be in part intact, that the memory may be excellent and the judgment on ordinary matters unimpaired, yet there is seldom any higher ability. These subjects may succeed in a routine calling, but they are rarely capable of a sustained mental effort in an original direction; the remarkable exceptions recorded prove the rule. Usually their conceits are bizarre rather than productive, their reasoning paradoxical rather than logical, and their argumentation tricky and shrewd rather than substantial. To the laity such subjects often appear to be brighter than the common run of mankind, because commonly oddity is mistaken for brilliancy, and unblushing pretense for merit. When the whole career of such subjects is followed up it is found to be exceedingly checkered, and vagabondage; theft, and fraud are often prominent incidents of their lives."[1]

Idiocy. The usual distinction between idiocy and imbecility is one of degree; idiocy being regarded as a lower state of mental degradation or monstrosity than imbecility. Many alienists, however, incline to consider idiots as such from birth, and imbeciles as manifesting their defectiveness at varying periods in life, usually before or about puberty. Imbecility and dementia are commonly confused when the words are used by those unaware that special meanings are properly attached to such names. Esquirol described idiots and imbeciles as those in whom the conformation of organs is never such that they can reason justly.

[1] Manual of Insanity, 308.

The dement was likened by him "to a rich man who had become poor, while the idiot was compared to one who had always been in want and misery." Dementia, or, in fact, insanity, strictly speaking, can only afflict one who has once had a mind to lose; and so idiocy would be omitted from works on insanity were too rigid a classification to be made. The uselessness of such distinction is seen in the fact that some idiots of the "developmental" class would, in either case, be included among the insane, as they are apparently normal children who become idiots. Probably few objections could be made to classifying idiocy as the profounder condition of mental degradation, and imbecility as the lesser derangement, regardless of the period of infancy or youth in which either was first observed. But while idiocy may be the grosser, and imbecility the lesser, mental degradation, the former more frequently originates at birth, as would be expected when we reflect that the later in life the mental failure in such cases, the more likelihood there is that some intelligence will persist. Hence imbecility, as a rule, is developed post-natally.

In England, idiocy in official reports covers the lower grades and imbecility the higher grades of certifiable mental defect.

Bucknill and Tuke[1] mention idiocy, imbecility, and cretinism as states of undeveloped intellectual power, while dementia is a state in which intellectual power, once present, has been weakened or destroyed. Lord Coke described the idiot as "one who from his nativity, by a perpetual infirmity, is *non compos mentis*." Idiocy is incurable because it is a structural failure of development. Seguin says "the idiot is badly served by imperfect organs; the instincts are limited, but imperious; sensations and reflex action taking the place of attention, comparison, judgment, memory, foresight, and will."

Among many other characteristics of idiocy the commonest are the vacant stare; thick, everted lips; drooling mouth; irregular, crowded, and decayed teeth; swollen gums; strabismus; ill-formed, usually large, ears; absence or defect of one or more senses, sight, hearing, taste, or smell; dumbness; staggering walk; want of symmetry; limbs contracted or paralyzed; long, slender fingers; hand grasp feeble; extremities blue or cold.

[1] Psychological Medicine, 48.

The eyes may not follow an object held up to the light, they may not be capable of being amused, or, on the contrary, may laugh at anything. The vaulted or V-shaped palate or mouth-roof is an indication of value in determining whether the idiocy dates from birth or not; but this condition may be found unassociated with mental feebleness. There is no special head deformity peculiar to idiocy, for small and large heads are compatible with mental development, unless the brain is correspondingly diminished by pressure, as from too early closure of the sutures of the skull, or from "water on the brain." In both microcephaly and macrocephaly (hydrocephaly), or in fact any cranial deformity, the bony distortion may not be a cause of brain insufficiency but a concomitant expression of faulty development. Fuller, of Grand Rapids, Michigan, and Lannelongue, of Paris, have practised craniotomy for the relief of idiots with primary synosteosis of the cranial bones, with a few apparent successes; but surgeons should allow alienists to select cases suitable for such operation.

Presence and absence of certain faculties and capabilities make wide differences between idiots. Many are abjectly helpless, vegetative, passing their excretions bestially, while some may be like the "one of seventy years of age, whose ladylike propriety was remarkable, most probably due to the care that had been taken in her training."[1] Esquirol divided idiots according as they used only words or short phrases, or, secondly, could articulate only monosyllables or certain cries, or, thirdly, were completely dumb. Others classified them by their activities, as, (1) Those who exhibit nothing beyond the reflex movements; (2) the emotionally and sensitively active; (3) those capable of volition and some intellectual operations. Ethnic divisions were suggested as they resembled Caucasians, Ethiopians, Malays or Mongolians. The latter, called also Kalmucs, afford 10 per cent of the total number of idiots, according to J. Langdon Down.[2] These have squat noses, almond-shaped eyes, wiry hair, and transversely fissured tongues. W. W. Ireland's classification[3] has stood

[1] Bucknill and Tuke, Ibid. 152.
[2] Tuke's Psychological Dictionary, 644.
[3] On Idiocy and Imbecility, 1877.

the test of time, and is more generally used than any other. His divisions are as follows:

1. *Genetous or congenital idiocy.* Heredity prominent; often dwarfish; deformities common; roof of mouth high (vaulted palate); teeth irregular and decayed, finger nails deficient; clubbed fingers; clubbed feet; eyes squinting or rolling; cyanosis; deficient valves of the heart; lobulated kidneys; some can be educated while the worst cases also are in this division.

2. *Microcephalic idiocy.* In which the head is small; the forehead narrow and rapidly receding; the vertex is pointed and occiput flat; sometimes a receding chin.

3. *Eclampsic idiocy* succeeds infantile convulsions, chiefly during teething; but a predisposition exists in such cases, for dentition is seldom followed by idiocy. This species of idiot, while it is able to move about and its sensation is uninjured, is capable of much education.

4. *Epileptic idiocy.* Idiots with epilepsy. When they learn anything a fit is liable to erase it from their memory. They are usually wild and intractable.

5. *Hydrocephalic idiocy.* In which the head is large. Dr. Ireland found such cases improved mentally rather than physically. Water on the brain is compatible with considerable intelligence.

6. *Paralytic idiocy.* Idiots who are more or less paralyzed.

7. *Cretinism.* A state of arrested development, usually with goitre, common in Switzerland and some other mountainous parts of Europe. Sporadic cretinism or single cases may occur elsewhere, but rarely.

8. *Traumatic idiocy.* Head injury cases, usually from protracted pressure of the head at birth.

9. *Inflammatory idiocy.* Usually due to external injury, according to Ireland, and therefore traumatic, but all authors include in this idiocy caused by fevers which have resulted in inflammation of the brain.

10. *Idiocy by deprivation.* Deprived of two or more of the principal senses. A notable case was that of Laura Bridgman, who was blind and deaf, and also deficient in smell and taste. She was successfully educated by Dr. Howe, of Boston.

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To this classification has been added:

Syphilitic idiocy. Occasioned by inherited syphilis, a rare form, showing itself about the period of second dentition, with specific skin affections in infancy, scars radiating from mouth, making a "puckered" appearance, teeth imperfect, "corkscrewed," or "saw-edged."

Shuttleworth[1] makes a similar division into congenital and noncongenital cases. Among the first he includes (1) microcephalus; (2) hydrocephalus; (3) Mongol or Kalmuc type; (4) scrofulous cases; (5) birth palsies; (6) cretinism; (7) primary neurotic. In an intermediate group that he calls the "Developmental," he includes those forms of mental weakness which show themselves at some crisis of development, such as during first or second dentition or puberty, though traceable to some original defect of constitution. Eclampsic, epileptic, syphilitic, and some post-febrile cases, are in this class. His noncongenital cases consist of idiots from head injury and fevers, emotional shock, as a fright, and toxic cases, such as those of infants drenched with alcohol or narcotics.

Idiots savants are instances of extraordinary memory, great calculating power, histrionic, or musical ability. Blind Tom, the musician, is one of this number. Or they may have great mechanical skill. They are usually congenital, and are exceptional.

Causes of idiocy. "It is not logical," says Shuttleworth,[2] "to attribute to a single specific cause the majority of cases met with, inasmuch as on investigation we shall discover several contributory factors. So strong, indeed, is the tendency of nature to revert to a healthy type that the solitary infraction of physiological law is not often visited by the penalty of mental abnormality; and if we only look back far enough we shall probably find that such a culmination is reached by the gradations of repeated transgressions. Not every drunken parent procreates an idiot; but when inherited nervous instability, from this or other causes, is intensified in the next generation by injudicious marriage or by unfavorable environment, instances of mental degeneracy are apt

[1] Mentally Deficient Children, 1895.
[2] Mentally Deficient Children, 35.

to occur. In our experience, physical factors play an important role in the production of mental defects. A phthisical family history is, indeed, the predominant factor traceable in our cases, the percentage in which this was found being 28.31 against 21.38 in which hereditary mental weakness (insanity or imbecility) was recorded. It is true, however, that, in addition, epileptic or neurotic inheritance showed a percentage of 20."

Ireland found two thirds of his idiots scrofulous, and Seguin says that no idiot or imbecile in his experience had weak-minded parents, but often there were aunts, uncles, or oftener a grandfather, idiotic, imbecile, or insane.

Parental intemperance is a cause of idiocy in from 13 to 20 per cent of cases; inherited syphilis 1 to 2 per cent; consanguinity of parents or grandparents less than 5 per cent, by intensified family weaknesses. 30 per cent of idiocy was due to maternal ill health, accident, or shock during gestation. The preceding were grouped by Shuttleworth as causes acting before birth. Among causes acting at birth, protracted pressure from delayed delivery furnished 14 per cent, and in only 3 per cent instruments had been used. Premature birth was a factor in about 4 per cent. Causes operative after birth were convulsions during teething 33 per cent, epilepsy 25 per cent; but generally the epilepsy and idiocy are both consequences of inherited taint, as in infantile paralysis. Injury to the head antedated the idiocy in 8.25 per cent, fright in 3 per cent, and severe fevers in 10 per cent.

Under "Forms of Idiocy" J. Langdon Down[1] describes a class differing from the majority. "They are full of vivacity, quick in their movements and in their perverted thoughts, and everlastingly in clever mischief. Unlike many others already discussed they do not live in a world of their own, but interfere adroitly with all that goes on around them; they are observant, impetuous, cruel, and destructive. They have no necessarily criminal conformation. They acquire languages readily, but in this case this is not an unmixed good, as they weary those around them with questions, and inconveniently appropriate to their use the language of the gutter."

[1] Tuke's Psychological Dictionary, 648.

Besides these, who are not readily shown to be idiots or even imbeciles, birth palsies may mask the intelligence of some children; and under proper education it will be ascertained that they scarcely deserve to be considered idiotic.

Seguin in 1837 practically began the education of idiots, and in 1842 he was afforded fuller opportunity at the Bicêtre Hospital, in Paris; and about the same time Guggenbuhl improved the condition of Alpine cretins by changing their locality; while Saegert taught imbeciles by methods adapted from those used in the instruction of the deaf and dumb. It may be said that in 1842 general relief for these unfortunates began to be afforded. In 1846 Seguin published his *magnum opus*[1] on the principle of physiological education. "The education of the senses must precede the education of the mind." He proceeded to "exercise the imperfect organs so as to develop their functions, and to train the functions so as to develop the imperfect organs." Dr. S. G. Howe educated, through the touch sense alone, the blind deaf mute, Laura Bridgman, and about this time, in 1848, Dr. H. B. Wilbur began the teaching of idiots in Barre, Massachusetts, and, later, he was placed in charge of a state asylum for that purpose in Syracuse, New York. In Pennsylvania the private school of J. B. Richards was subsequently taken in charge by Dr. Isaac Kerlin, at Elwyn, and in 1857 the Columbus, Ohio, school began, which under Dr. Doren in 1895 had 800 inmates. Connecticut, Kentucky, and Ohio, California, and other states followed, and in 1892 there were in the United States nineteen public schools of the kind, which, with the private institutions, contained over 6,000 inmates. Dr. C. F. Wilbur has a school for the feeble minded in Kalamazoo, Michigan.

By the census of 1890 there were 95,571 idiots and imbeciles in the United States. Shuttleworth estimated about 46,000 for England and Wales, and he claims that 30 per cent of the idiots under instruction were greatly improved by their training.

The irresponsibility of idiocy is in most cases so obvious that bare mention only need be made of the dangerous propensities which some of them possess, often through imitative tendencies. An idiot referred to by Gall butchered a man as he had seen a hog

[1] Traitement Moral, Hygiène et Education des Idiots et des Autres Enfants Arriérés.

butchered, and Spitzka[1] mentions an idiotic boy who killed a child and dressed it as he had seen a sheep dressed. Fortunately the sexual function is in abeyance in most idiots, though exceptional instances occur, necessitating rigid isolation. Female idiots have frequently been impregnated; poor-house instances are notorious, often advantage being taken of their condition. Sometimes idiots have destroyed their newborn offspring or allowed death to occur from inattention. Generally the parturient act seems scarcely to be noticed by them, the birth being free from the pains customary in normal life.

Imbecility may exist without outward indication. In some instances imbeciles are well formed, strong, and healthy, but usually they are malformed. The head may be misshapen, asymmetrical, too large, or too small. Their faces lack intelligence, having sometimes an animal appearance. In some the forehead is low and flat, the ears badly shapen, eyes small, often strabismic. They may also lisp or stutter; the lower jaw protrudes; there are defective palate bones, sometimes hare lip; often the genitals are rudimentary or exaggerated in size.

The causes of imbecility are of course identical with those of idiocy, but while few idiots live to maturity the viability of imbeciles approximates that of ordinary persons.

Ray,[2] writing at a time when systematic instruction of this class of unfortunates was only barely begun, stated: "Imbeciles can never attain that degree of knowledge which is common among people of their own rank and opportunities, though it is very certain that they are not entirely insusceptible of the influences of education. They are capable of forming a few simple ideas, and of expressing them in language; they have some memory, and a sense of the conveniences and proprieties of life. Many of them learn to read, write, and count, and make some progress in music, though, for the most part, they are untaught and employed in the coarsest and rudest labors. Their moral and intellectual character presents the same infinite variety that is witnessed in the normal state of the mind. While some are changing their plans and resolutions with the fickleness of the winds, others have some favorite project which they are bent on

[1] Manual of Insanity, 280.

[2] Medical Jurisprudence of Insanity, 78.

accomplishing. While nothing can arrest the attention of some for a moment, others pertinaciously retain some crotchet that occupies nearly all their thoughts. Some engage in certain occupations, and manage to take care of themselves and their property, though frequently obliged to resort to others for advice and assistance. They talk but little, and will answer questions correctly, provided they are not without the circle of their customary thoughts and habits, and are not required to follow a conversation. They are particularly deficient in forethought and in strong and durable affections, and they generally labor under a certain uneasiness and restlessness of disposition that unfit them for steady employment. They are thus easily induced by bad men to assist in the execution of their criminal enterprises."

Georget[1] observes: "In hospitals for the insane there is always a certain number of imbeciles who do the coarser work of the home, or serve as domestics and assistants to the regular officers. They become sufficiently intelligent at last to perform their duties well, to sweep the courts, carry burdens, move machines, execute simple commissions, know the use of money, and procure various enjoyments. But they have no idea, or a very imperfect one, of society, laws, morality, courts, and trials; and though they may have the idea of property, they have no conception of the consequences of theft. They may have been taught to refrain from injuring others, but they are ignorant of what would be done to them if guilty of incendiarism or murder. Indeed, it is well known how common theft is among imbeciles and idiots, and for very obvious reasons. Some of them have no conception of property nor of the distinctions between *meum* and *tuum;* their conduct is actuated solely by the fear of punishment, when capable of experiencing this sentiment, and by their own desires. Others have some notions of property, but neither a sense of morality nor a fear of punishment furnishes motives sufficiently powerful to prevent them from stealing. The sentiment of cunning, too, may be very much developed, while the other faculties are more or less deficient. Among the lower orders of society are many imbeciles of little more intelligence than these, and not considered as utterly devoid of understanding, who, nevertheless, have but vague and imperfect notions

[1] Discussion Médico-Légale sur la Folie, 140; Ray, op. cit. 85.

of social duties and of justice. They engage in occupations that require no great extent of intellect, and even in the simplest of the mechanical arts. If they do not pass among their acquaintances for imbeciles, they are at least regarded as singular beings with feeble understandings, and are teased and tormented in innumerable ways. Many of them, for want of some powerfully restraining motive, indulge in drinking, and become lazy, drunken, and dissipated, and finally fall into the hands of justice in greater numbers than is generally suspected. They steal adroitly, and hence are considered as very intelligent; they recommence their offenses the moment they are released from confinement, and thus they are believed to be absolutely perverse; they are violent and passionate, and the slightest motive is sufficient to plunge them into incendiarism and murder. Those who have strong sexual propensities soon become guilty of outrages on female chastity. I have had occasion to see many examples of this class in prisons, who had been judicially decided to be rational, but whose demi-imbecility was manifest enough to me."

It may be easily imagined, says Ray, what the moral character of lower grades of imbecility may be after the above description of the lesser grades. But, he further remarks, it is worthy of notice that oftentimes the very fact which furnishes undoubted proof of imbecility to one observer conveys an unshaken conviction of mental soundness to another. And in his discourse on Imbecility[1] he cites valuable instances of the occasional difficulties encountered in making the imbecility apparent in courts of law, and the juggling that may occur in the use of such terms as "unsoundness of mind," "mental weakness," etc., concluding with the decision in the Lispenard Case in the New York court of errors in 1841. "Her mind was weak, but not unsound; and courts cannot measure the extent of people's understanding or capacities, however feeble they may be, without being positively unsound,"[2]—a distinction hardly to be expected in a judicial decision.

"Feeble-mindedness" is used euphemistically in America to cover all kinds of congenital defects from backwardness but little

[1] Op. cit. 91, 100.

[2] Stewart v. Lispenard, 26 Wend. 256.

below the standard of normal intelligence to profound idiocy, the affliction of the helpless, pitiable, disgusting burden, with every degree between these extremes. In England the feeble-minded are officially regarded as those who by reason of blindness, deafness, or otherwise, require exceptional modes of education. In France they are the *Enfants Arriérés;* in Italy the *Tardivi;* in Germany *Geistig-Zurück-Gebliebene.*

Dr. Howe attempted gradations, such as distinctions between the idiot, imbecile, fool, and simpleton; but the two latter terms are too commonly opprobrious to admit of their acquiring technical value. Hence his suggestion was as ineffectual as Hoffbauer's endeavor to differentiate imbecility from stupidity.

"The study of imbecility, and its lesser degree, feeble-mindedness," says Spitzka,[1] "is of much greater practical importance to the alienist than that of idiocy. It is a popular and erroneous belief that an imbecile is one entirely devoid of ideation. It thus happens that imbecility is often overlooked when the subject is in the lower walks of life, and that, as Georget very happily observes, 'it is above all in the inferior walks of society, where the individuals need but little intelligence to carry out simple labors, and to fulfil limited social obligations, that only those are considered imbecile who are not even able to lead a horse or to watch a herd.' A degree of imbecility which would scarcely be observable to the laity in a hod carrier would be very manifest in a school boy or academical scholar. The writer has known imbeciles who had to be removed from school because unable to keep up in their studies with children many years their juniors, to become successful mechanics and good copyists. Even in asylums there are many imbecile inmates who are employed in the garden, in the kitchen, as aids in the hospital wards, and who are occasionally more methodical and reliable in their limited sphere of action than the attendants placed over them are in theirs. The imitative tendencies which are more common here than in idiocy are often utilizable in making of the imbecile not only a good, but sometimes a very skilful, mechanic. His mechanical skill is mainly shown in the direction of imitation and reproduction, and but rarely in a new or untrodden field. It is

[1] Manual of Insanity, 280.

similar with other mental processes. Imbeciles sometimes have an excellent memory for simple facts. There are instances on record where imbeciles have known the dates of the birth, marriage, or death of every person dying in a certain community for thirty years, or the time of departure of every railroad train that had left a certain station in the same time. But the imbecile is unable to unravel those complex combinations of which simple impressions are the component units. The mental state of the imbecile has been very well expressed by the statement that those higher mental co-ordinations acquired in the course of a higher civilization have not been found in him.

"While the imbecile is defective as to his reasoning capacity, his emotional state may present every analogy to that of healthy persons, or approximate that of other forms of insanity. Thus, there are imbeciles who are mild, affectionate, good-natured, and even philanthropical; on the other hand, there are imbeciles who are treacherous, suspicious, and cruel. Moral defect is a prominent feature of some cases, and this condition may be the chief manifestation of mental deficiency. There are subjects whose reasoning powers are fair, whose memory is excellent, who are, perhaps, accomplished in the arts, but in whom the moral sense is either deficient or entirely absent. The term 'moral insanity' of some authors should be limited to this class of subjects."

Charges of malicious mischief are occasionally brought against imbeciles. One of them derailed a locomotive "to hear the noise it would make," and was sent to a "reform school" where criminals and the weak-minded are associated, to the moral detriment of the latter.

Moral imbecility, in Spitzka's opinion, would be a much better term than moral insanity, in which to include those just mentioned above; and he regards the one-sided development of special faculties and the positive signs of mental alienation, such as moral perversion and anomalies of character, as characteristic rather of the hereditary than the acquired cases of imbecility; but to the statement of Krafft-Ebing, that one-sided development of special faculties is never found in acquired imbecility, Spitzka demurs and refers to instances, in a footnote.[1]

[1] Op. cit. 282.

Blandford[1] in the 1895 Lumleian Lectures at the Royal College of Physicians, says: "And first, of those who, through congenital defect, or as the result of disease in early life, are mentally deficient,—not idiots, but weak-minded imbeciles—children in mind throughout life. They come before us in various ways. Though children in mind they are often men and women in wickedness and vice; and it may be necessary to place them under restraint, or to protect their property from being squandered and themselves from being robbed. I know of no class over whom controversy is so likely to arise, or where we may have greater difficulty in forming a diagnosis. They are not idiots; many of them have acquired a fair amount of education, can construe a Greek play, or master a proposition of Euclid. Their memory is excellent, and we cannot compare their condition with a former one, for they have never been any better, so that this test fails us. They have no delusions or hallucinations, and are not insane in the ordinary sense of the word. With regard to many there is no difficulty. When a man or woman of forty submits to be treated like a child of ten, to be taken out and amused, and to have sixpence a week for pocket money, we have not much difficulty in forming an opinion. But the development of others is not so low; yet they are deficient in reason and judgment, and often in conduct. There is a tendency to low and depraved habits, to brutish and sensual enjoyment, to low company amongst whom they are of some importance; and if remonstrated with they show an absolute disregard for truth or for right behavior. Lawyers will defend these patients and say that they are not insane, and the celebrated Wyndham case shows what can be done by their aid. In examining any such individual we must consider his conduct in regard to his environment and bringing up. What might be passed over in the lower walks of life is, in the higher, evidence of a depraved mental state. Every case must be judged by itself, and the question must be asked, Is this person able to take care of himself and his affairs? But to sign a certificate is often difficult, as we may not ourselves witness the insane conduct, all of which we arrive at only by hearsay. It is not to be forgotten, however, that imbeciles are very

[1] Lancet, April 6, 1895, 857.

prone to display violent explosiveness of their nerve centers, and this is especially likely to happen as they advance from the period of puberty to adolescent life."

Shuttleworth[1] has written upon the medico-legal aspects of this subject, and, further[2] speaking of their general management, says: "Perhaps the most trying case we are called on to deal with amongst children mentally abnormal,—there is in this instance often but little intellectual deficiency,—is that of the moral imbecile. The despair of his parents, the *bête noir* of the institution, the perplexing puzzle of the jurist,—he seems to be the ill-fated product of inherited nervous instability and ancestral criminal instincts. He or she may combine the most innocent, sometimes most engaging, external appearance with an inner depth of cunning and iniquity which requires to be experienced to be appreciated. The sudden impulses to mischief occurring in these cases are probably of an epileptoid character, and paroxysms may sometimes be cut short by bromides. But as a rule, moral discipline is of little avail; punishment may be administered, and professions of penitence called forth, only to be forgotten as soon as the mental disturbance again recurs. The author has a vivid recollection of three nice looking children, sisters and brother, formerly under his care, who at times would appear models of propriety, while at others they had all the characteristics of little demons. With innocent expression they would positively accomplish the most abominable mischief, and, after meekly acknowledging the error of their ways, would emphasize their apology by a missile flung at the head of the person who had attempted to bring them to repentance. Such children would in old time have been called 'possessed;' now they are classified as cases of moral imbecility, or juvenile insanity. Dr. Samuel J. Fort has recently described similar cases under the title of 'psychical epilepsy.'

"In other disappointing cases we find considerable improvement in intelligence and manual skill, with actual deterioration of the moral sense. Intelligence and skill which have been acquired are indeed used for evil purposes; and the late Dr. Ker-

[1] Legal Responsibility of Educated Imbeciles, Journal of Mental Science, XXIX., 467.

[2] Mentally Deficient Children, 1895, 99.

lin, the able superintendent of the Pennsylvania institution, who paid much attention to this class, came to the conclusion that to educate them often gave them added power for evil, and that they should not be allowed to prey upon society. He claimed that moral imbeciles should be treated in a class apart, in buildings by themselves, as they affect the methods of living and training of the rest. Dr. Jules Morel has, in a recent communication to the Medico-Psychological Association, advocated the establishment of special institutions, intermediate between reformatories and asylums, wherein such persons should be objects of prophylactic treatment against crime."

Religious training is often of great value in regulating the lives of these defectives.

Between the different phases of idiocy and imbecility there are such monstrous gaps in the degrees of intellect and morality involved, that the alienist upon such facts would venture no opinion as to responsibility in the borderland cases between moral imbecility and sanity, and would leave such arrogation of omniscience to the more ignorant.

The following sermon[1] by Rev. Frank Crane, concerning degeneracy in general, bears more particularly upon a class which, as yet, is regarded as not in all cases either medically or legally insane. This sermon is a decided departure from the usual emotional pulpit denunciation of all criminals, and may indicate a future popular spread of scientific investigation of criminology:

"Christian Merry, a thick-necked, low-browed, typical Chicago criminal, has been arrested in his flight after murdering his wife, and has been brought back to this city, where he lies in jail awaiting trial. Now that you have got him, O society, what are you going to do with him? If he were rich he could perhaps dodge the gallows many a month, but as he is poor, and as his villainy has never taken a political turn, he will probably have short shrift. In a few weeks, doubtless, you will strangle him to death in the process of so-called justice. But let us look into the case a little, and see how stands the issue between society and this rogue. Not to infringe upon the jurisdiction of the court, let us note some evidence that the law will not admit. Before

[1]Delivered in Trinity Church, Chicago, January 2, 1898, published in Chicago Record, January 3, 1898.

ever he was born, the twin devils of a mighty appetite and a weak will were put into this man. His father was a habitual drunkard; 'he would drink until "paralyzed," and then sit on a doorstep in a stupor until almost frozen to death,' says the newspaper. 'He had no capacity for enjoyment outside of bestiality.' Did Christian Merry select this man for a father? Who is to blame, then? His mother had a large family, and had so fierce a struggle with poverty that her children were suffered to run wild. Young Christian was never caused to go to the public school nor to the Sunday school. His early education consisted in a complete course in blasphemy, obscenity, and rascality in the day school of the street and the night school of the saloon. His childhood ideals were of the glory and allurement of crime. Was the small boy to blame? The neighborhood in which he was brought up is in the center of a great city's criminal district, distinguished for squalor, bad sanitation, low, damp, and dark dwellings, scarcely raised above the water level, and the human vermin that gravitate to such a municipal cesspool. Hell lay about him in his infancy. His pleasure was the coarse and ribald jest, his story books the foul exploits related by unclean lips, his recreation fighting and stealing. Is it for this you are going to hang him by the neck until dead?

"About ten years ago in one of his numerous brawls he was knocked in the head with a bar of iron; he lay a month between life and death, and since his recovery has had frequently recurring gloomy and crazy fits, wherein he raged like a were-wolf and sought to quench the misery in his heart by strong drink,—in other words, sought to put out an inward hell-fire with alcohol, with the usual results. Ever since he crossed the line dividing childhood from manhood he has been given to sensual excess and whisky-fired debauch. Is it for this you will throttle him? It may give no force to the argument, but it certainly adds a dramatic interest to the picture of his life when it is further learned that it was on the night of the Chicago fire, October 9, 1871, his mother fled from one of the most awful conflagrations of history, and that in the midst of this terror and carnival of fear the little Christian opened his eyes for the first time upon the world which was to imbrute him, to pollute him, and then to kill him. Now, who is responsible? Not having a practical,

legal mind, but only a poor ministerial brain, I say that it was not the poor wretch who now nurses his frozen feet and snarls like a beast at bay in the city jail. Not he, but they who ruined him, who erased the image of God from his heart and stamped thereon the image of the devil. Who are they? The 'good' citizens. By indifference and selfishness they permit the spoilsman to run the politics of the city; the spoilsman cannot succeed without the crime nests; he encourages, fosters them, for they vote solidly for the 'machine.' The national party in municipal elections may seem a far cry from this case, yet it is this that divides the forces of righteousness and consolidates the power of rascals. Then there are city officials who, instead of enforcing the law against crime, permit crime, get hush money from it, allow the blackest, foulest neighborhood this side of purgatory to exist right in the heart of the city. The Lexow investigation in New York revealed the extent of official corruption there, and there is little question but it could be duplicated here. If you must hang somebody, why not begin at the beginning? We have magnificent parks and boulevards, but they are all lined with the houses of the rich and far away from the poor. Why don't you park and boulevard the river districts, put flowers and grass and trees where the poor live, give them who need it a playground and breathing room? If you wish to stop murdering would not this be more to the purpose than grabbing all the luxuries because you can, and letting the poor perish in sickly crowds, and then gibbetting them when they break out with the criminal instincts you have housed in them? And your churches —why do you huddle them together where the wealthy live, and leave the poor nothing but missions? If you really want to save the world, why don't you put your fine architecture and eloquent preachers and inspiring choirs right in the midst of human need? Instead of rival denominations fighting for the patronage of fashionable districts, why don't you stop your selfishness, pool your resources, get to business, and go after Christ's lost sheep? We have let the miserables alone, gone as far away from them as we can, shut our eyes to them, and now, when murder blossoms on the stem of vice, we can do nothing better than murder the murderer. If it is possible to change social conditions, as indicated above, is it not possible to show a Christian spirit to the creature of our neglect?

"He is a murderer—hang him! Oh, stupid and perverse generation! Is this Christian civilization? But he is an enemy to society! Certainly; but have ye never prayed: 'Forgive us our trespasses as we forgive them that trespass against us,' and 'Return not evil for evil, but overcome evil with good?' But hanging is needed to discourage crime. Are you ignorant of history? When did cruel and extreme punishment ever dissuade criminals? The past tells us that crime has decreased in exact proportion as criminals have been treated more humanely. Evil for evil, murder for murder, is the devil's logic. Fire quenches not fire, nor does cruelty allay cruelty. Suppose you try Christ's plan. Try good for evil. Establish reformatories instead of penitentiaries. Help, heal, cure instead of revenge. One who has taken human life needs, of course, to be seriously treated, removed for years, perhaps for life, from that mankind he has wronged, but removed for what? For vengeance, retaliation? No; for showing him the value of the life he has destroyed, for curing him of his brutishness as far as possible, for teaching, guarding, developing him to make amends, as far as in us lies, for the manner in which we have ruined him."

"I do not in any wise wish to be understood as participating in the mawkish sentimentality sometimes exhibited in tears and flowers toward murderers. A silly sympathy for a depraved wretch is a fitting crown to the folly that debauched him. But if the spirit of Christ has any influence in a Christian civilization it ought to show us the absurdity and wickedness of legal 'vengeance.' 'Thou shalt not kill' applies also to human law. Segregate the criminal and do all that can be done to undo the work that evil has wrought in him; this is justice, not revenge. I believe with Bulwer that 'the worst use that can be made of a man is to hang him?'

"Who's to blame? Let us adapt Lowell:

> "Said Christ our Lord, 'I will go and see
> How the men, my brethren, believe in me'—
> Then said the chief priests and rulers and kings,
> 'Behold now the giver of all good things;
> Go to, let us welcome with pomp and state
> Him who alone is mighty and great!'
> Then Christ sought out an artisan,

A low-browed, stunted, haggard man.
Him set he in the midst of them,
And as they drew back their garment hem
For fear of defilement, 'Lo, here,' said he,
'The image ye have made of Me.'"

Cases of Degeneracy.

B. was of restless, roving disposition, killed a fellow student in a duel in Bonn, Germany, and enlisted in the regular United States army, serving out his time mainly as a clerk. By his father's death he obtained $13,000, which he spent in a few weeks' riotous extravagance, and later lived a vagabond life in Mexico. He developed periodical cataleptic attacks alternating with dipsomania, and made several suicidal attempts. Notwithstanding his good education and capabilities in general and his possession of friends who were willing to assist him, he refused to remain long at anything or in any place; at the age of forty-eight he still seems unable to lead other than a tramp's existence, traveling thousands of miles afoot and in freight cars with no other apparent object than to keep moving; working a little here and there for his food.

H., a female medical graduate. She had both her ovaries removed when thirty-five years old, hoping thereby to prevent insanity, which was hereditary in her family, several female relatives having become insane at the climacteric. Growing very obese, she had both her breasts amputated. She was very hysterical and devoted to theosophy and other mysticisms. Her son was an incorrigible moral imbecile, who lost his eyesight through gonorrheal inflammation. She persistently advised him to commit suicide, and gave him a large amount of morphine, with which he killed himself.

B. differed from the ordinary child only in a singular optimism. When twenty-five she became depressed and suffered from gastritis, conditions that precede the appearance of many different forms of insanity. Soon a modified form of hysterical insanity appeared, in which she had erotic delusions. This was succeeded by agitated melancholia lasting two months, and later by furious outbreaks unlike those observed in melancholia, resembling more the aggressive maniacal stages of some epileptics. She claimed

to have no recollection of these periods. Gradually, within a year and a half, she recovered from the acute stage, and seemed so rational that it appeared as though she was nearly her former self again; but with the wane of her delusions of persecution, delusions of grandeur and complacency followed, indicative of permanent mental enfeeblement.

M., an efficient salesman for a wholesale house, became maniacal for a short while from alcoholism, but worked steadily many years thereafter; became a paretic dement with furious outbreaks which lasted longer than usual; was seven years in this condition; at one time he was thought to be hopelessly demented and dying, but he grew mentally better and left the asylum. Seeking his home and friends he found the world had swept by him, his wife had abandoned him for another, and he could obtain no employment. He returned to the asylum a melancholiac, and is now a terminal dement of five years' duration.

B. was thirteen times maniacal in nineteen years, each attack lasting about six weeks. The exciting cause of the first period was childbirth; other occasions were due to excitement, worry, and the birth of other children. She gave birth to three children before any insanity developed. One daughter has an abnormal jaw development, while another during a visit to the World's Fair at Chicago was insane one week, with symptoms resembling confusional insanity. Both these daughters were born before the insanity appeared in the mother.

L., insanity in three preceding generations. She has been committed to state asylums many times, and released when temporarily improved; a hysterical paranoia predominates, and in her worst periods she is abusive, greatly excited, and given to scurrilous, yet plausible, letter writing.

L., a case reported by Dr. W. F. Waugh in the Proceedings of the Pennsylvania Medical Society, 1888, of paranoia appearing after an attack of typhoid fever. He earned considerable money through peculiar ability as a salesman, but often plunged into reckless extravagances and dishonest practices. He obtained some jewelry through false pretenses, and was jailed in Chicago, where I was asked to see him. He had delusions of possessing great wealth, with other megalomania peculiarities, and resented any attempt to liberate him on an insanity plea.

G. Profound dementia rapidly developed in a boy of twenty years, with no other apparent reason then tuberculosis prominent in several of his maternal relatives.

B. Both parents died of apoplexy; a weak-minded brother died at the age of twenty; another brother became insane at twenty-one; a sister committed suicide; a third brother suffers from severe migraine. After the birth of her third child the patient became depressed and apprehensive; the fear of becoming insane, as her relatives had done, was her greatest anxiety. Her mental ailment was not a pure psychosis; it was more like hypochondriacal melancholia, with occasional hysterical excitement. She apparently recovered within a year, but of course is in danger of relapsing.

C., a notorious Chicago instance, to be reported more fully under *Circular Insanity*. His father was alcoholically insane, and C. became maniacal after a head injury, though there is evidence of insanity prior to this, and that his head was hurt through an insane indiscretion in a political *mêlée*. He has for six years alternated mania in the summer with melancholia in winter, there being a short interval of comparative sanity.

W., mother insane; was temporarily confused and stupid during pregnancy; at thirty-five began drinking whisky and laudanum, and at forty-five is a confirmed narcomaniac.

N., father insane; a sister died during melancholia; has a brother who appears to be quite healthy. N. suffers from hypochondriacal melancholia, at times worse than others; commits himself to an asylum voluntarily, and is improved by so doing; but grows worse with every adverse event, such as catching cold, loss of work, etc.

M., recurring melancholia nearly yearly, lasting a month; with delusions of persecution and persecutory hallucinations of hearing. After about seven such attacks, one of which was brought on by *la grippe*, he became a steady drinker, and for four years his melancholia has been absent.

J., bookkeeper, twenty-eight, sought admission to asylum, fearing that he might become suddenly insane. His parents were both insane, and he cursed them for having married. His trouble was the fear of madness, which incessantly preyed upon his mind. Hypochondriacal stage of degeneracy.

W., a real-estate dealer with doubting insanity, found it at times impossible for him to decide any business matter, and was compelled to rely upon the will power of another, to whom he would relate the reasons for and against the transaction, and sufficiently indicate what he would do if he were well enough to decide the matter. During a remission he gave a power of attorney to the person he trusted, to escape the difficulty he experienced in signing checks. For three years I was accustomed to meet this patient walking before my office building. Sometimes he had ventured into the hall. He was always greatly relieved upon seeing me and would at once follow me into my rooms, though he had been wasting hours in futile attempts to call upon me, as he had previously found it impossible to make up his mind to enter my office. A prolonged sea voyage, taken at my advice, resulted in restoring his will power completely. There was no heredity in his case.

T. An instance of obsessions in both mother and daughter observed in 1895. The mother was constantly in dread of diseases; at one time the probability of cholera was mentioned, when she crawled under the bed and remained there two days. Such things as sickness, accidents, or funerals could not be spoken of without throwing her into paroxysms of fright. Aside from transmitting the debilitated nervous system to her daughter, association aggravated the tendency to obsessions, and suggested for them a special direction. At the age of thirty-one the daughter is a cultivated, educated person, with obsessions of indecision; she finds it impossible to decide for herself. For example, she broke off an engagement of marriage, regretted having done so, and discarded the gentleman a second time, and suffers intensely over fears that upon all occasions she has not done exactly right. She constantly debates with herself the propriety of actions, and distresses herself greatly about trivial things, while fully recognizing the absurdity of so doing. A small supernumerary left-ear tragus and a right inguinal hernia exists in this case.

M., aged twenty-seven, appeared before Judge Gary, of the county court, for commitment to an asylum, as he feared that he might kill someone. The date of his trial was July 24, 1889. The trouble is periodical with him at intervals of about two years, each successive one more severe than before. At such times he

secluded himself for a few weeks, and would then return to work, with no trace of his obsession propensity. He stated that his mind at such times was clear enough, but he could feel the change coming on, and the sight of a tool would create an impulse to kill himself or anyone near him. He characterized the impulse as being "muscular as well as mental," to show how involuntary was the inclination to slay someone.

B., thirty-five years old, presents a case of changing aversions, and the existence of symptoms that deserve full recording as tending to throw light upon the pathology of obsessions, and to illustrate to jurists how acts may appear insane with coexisting general sanity. She had scarlatina when three years old, details not obtainable. Deafness of *right* ear remembered as existing when twelve or thirteen years old; how much earlier unknown. The *right* arm and radial fingers have occasionally "cramped" and felt numb for past ten years, at times nightly. During the last six months the ulnar fingers were alone affected, but the entire arm would often "feel dead." She would have a sensation of the two outer fingers being closed upon the palm, and find upon looking that such was not the case.

Her father died of pulmonary tuberculosis; mother is living and healthy; one brother died of "consumption" and another of "heart disease;" a living brother has a hip-joint trouble which is probably tuberculous.

The patient was always timid and was particularly afraid of cats when a child, and she fancies that her timidity has increased since she was ten years old. When sixteen years of age she heard of "a woman who swallowed a lizard at a spring, and it grew in her and killed her," and she wondered as she drank if such a thing could occur to her, but it did not distress her at that time, until when about eighteen years old she began to ask herself, "What if worms were in water and people drank them, what would happen," etc.

After moving away from her former residence she ceased to speculate upon such matters. (At this stage the formation of the mysophobia is seen in the doubting, and throughout all phases of her malady the *folie du doute* has been at times very prominent.) But after awhile if she ate an apple, the appearance of a worm therein would shock her with a fear of contamination. At the

age of twenty she dreaded to pump water for fear a worm might appear in it, and soon she began to look for larvas in trees and elsewhere, and imagined that she felt their webs on her face. Years after this, if she found a larva on her dress she would never wear the dress again. She particularly feared the black woolly grubs of caterpillars. She began to wash frequently to rid herself of "worms" and cobwebs, and finally she imagined they were everywhere; her washings increased in number, and she burned up dresses and table linen by the dozens. Two years ago her worm ideas abated materially, after an attack of tonsilitis, followed by one of measles; and in July, 1892, she visited her father, who was dying of phthisis, and her mysophobia seemed to have disappeared; but in August of that year her father came to her house, and a woman (for want of something else to talk about) remarked that our patient looked consumptive, which was far from the truth, as she was plump and healthy. Forthwith the worm idea was replaced by a fear of "consumption," and she worried incessantly over the appearance of spittle everywhere. She washed everything washable, as well as her hands repeatedly, and destroyed dishes and china ware generally. She even tore some gold beads apart that she fancied had been expectorated upon, and threw them in a pig pen. She stamped upon and threw away a breastpin, and burned blankets, quilts, pillow-cases, dresses, and underclothes in great quantities; all because her father was dying of consumption and she fancied that his disease had contaminated everything. She fully recognized the absurdity of her delusions, which at times took the form of hallucinations of touch, the wash water appearing to be slimy; but each time she felt that nothing but the destruction of the contaminated article would afford relief. In this regard the imperative conception was accompanied by the "imperative act" or "morbid impulse," from which there seemed to be no escape.

Her father died in October, and in February, 1893, she read something in a newspaper about a mad dog biting a woman on the ankle; and though the "consumption" idea persisted, she began to be afraid to look at a newspaper for fear there would be something about mad dogs in it. She read a book called "Youatt on the Dog," and burned it up. The dog fear then replaced the "consumption" fear to the exclusion of the latter. She spent an

hour in washing herself, and used all the soap in the house and went to bed in terror of hydrophobia. She induced her husband to dispose of the house dog which previously she had petted. Between loss of sleep and constant weeping, she fell sick. Her physician, with the best of intentions, made the mistake of putting a cloak on her, that she had discarded through fear of contamination, and it resulted in a serious illness lasting five weeks, during which time she emaciated greatly. Before this she had bought numerous hats and destroyed them, as well as garments that she feared some dog had touched. In January, 1894, she voluntarily confined herself in the Long Cliff Asylum, at Logansport, Indiana, where she remained until August. While there she often stood up all night in her room rather than go to bed, which she feared was contaminated, and, most distressing of all, she became afraid of her husband and could not go near him, because he had been in a yard adjoining another yard where a dog was killed by a policeman. The house became unendurable and was given up, and the household effects were packed up, stored, or sold off.

For four years past she has suffered from occipital pains (this has been mentioned as occurring in other mysophobia patients), particularly when she had passed a sleepless night. During six years she noticed an occasional twitching of the muscles of the *right* side of the face.

The patient came to me in August, when I noticed an anxious look about her face, and finally, when ready to come to my house, she appeared at my office sobbing hysterically, with widely dilated pupils, careworn, pale, and with every appearance of terror, because she had seen so many dogs that day. Those who accompanied her remarked that they never knew there were so many dogs to be seen as when they were with her.

At times she appeared to be very much improved, she slept better, ate heartily, and was quite cheerful, but suddenly something would occur to overwhelm her with dread lest some dog's spittle had contaminated her, and in the great majority of cases it was her *right* hand that felt the dog's saliva or bite, the *right* ankle and calf in which she experienced the sensation of being bitten. When alone, and particularly in the dark, she would interpret vague shadows as black dogs, and instantly feel a bite, usually

in the ankle. In moving a pillow or bedspread, black dogs would jump out, but these impressions scarcely constituted sight hallucinations, as there was no clear appearance of anything but a hazy darkness about such sights. At her home her husband was kept busy looking for dogs under the bed and in impossible places generally. She slept so little and rummaged for dogs and washed her hands so repeatedly at night that I found it necessary to give her from thirty to sixty grains of chloralamid, two or three nights in the week. Sulphonal acted badly, and gave her unpleasant dreams, but the chloralamid afforded a refreshing sleep, from which she invariably awoke improved the next day.

The sensation of cobwebs spun across her face would appear whenever a sudden aversion to an article, place, or person occurred, as contaminated. This "cobweb" feeling was maintained throughout her different imperative conceptions of the worms, "consumption," and dogs, and is a tactile hallucination also noted in other cases.

She thought that her craziest periods occurred about a week after menstruation (which was exceedingly scanty), but she was better or worse according to many circumstances of a physical or mental kind; more notably after exposure to an environment of dogs she would feel cobwebs and grow anxious about her hands, especially the right hand, having a mark like a bite, as she would construe some insignificant spot thereon, or having been licked by a dog, when no dog had been within 100 feet of her. She would close windows for fear dogs might jump in, and any strange noise she was liable to misinterpret as the whining or barking of dogs.

These and other things, to be told of her, appear insane enough, but a short conversation with her would convince you of her clearness of intellect upon all other points. She was well educated, refined, gentle, and a most omnivorous reader, but the latter inclination occasioned frequent grief, for pictures of dogs and accounts of hydrophobia were incessantly happening in her books, and at once after such an encounter, not only the book, but the table upon which it rested and articles near the book, became contaminated; "covered with dog hairs." Once she could not use a pen that had been on the table near a book in which dogs were mentioned. Parts of a lounge, easy chairs, and often even

her food, became polluted in some remote way by a dog, and many a meal would she refuse in such case.

At one time she refused a meal because someone had a handkerchief at the table which she thought had rested on a wisp broom which had been used to brush a cloak that she had once worn when she had seen a dog, but upon being convinced that it was not the same handkerchief, at once she began eating.

Often I have seen her holding her hands outstretched, and weeping over the impossibility of cleansing them, after soaping and drenching with water, again soaping and washing, and continuing to do so twenty or thirty times. Each new series of washing required a new piece of soap which she would carefully examine to see if a dog might not have chewed it. When a bad bout of such washings failed to give relief, portions of her dress would be discarded never to be worn again, and in the course of a month she would divest herself of entire suits and beg to be allowed to burn them, as she did not wish to contaminate anyone else by giving them away.

Some of her apparent inconsistencies she accounted for in this way: if she were contaminated and another person came near her she avoided him or her, unless she thought that person was equally defiled; and if the individual were contaminated, and she for the time felt clean, then she kept at a distance so as not to have contact with the "dog hairs and saliva" of the other.

She would mentally map out the entire house into defiled and clean portions; this chair was all right, other chairs were not, this bed was free from reproach and another was "doggy," and it was a worrying problem to all as to what room she should occupy and how often the sheets and pillow cases were to be changed before they became satisfactory. As might be expected where so many spots had to be memorized she would get them mixed sometimes, with ludicrous results.

There were days when she seemed nearly free from her anxieties, and at one time a week passed without her usual troubles, but the terrors came back with redoubled force, once to a great degree after a tonsilitis of the *right* side which necessitated lancing, and was accompanied by a high fever. The subsequent prostration augmented the mysophobia and bearing upon this, Beard's idea that "neurasthenia" ("whatever that is or is not,"

as Spitzka says) is the basis of mysophobia and many such difficulties has been pretty generally adopted, and seems plausible. Mrs. B. has never been very strong, and debility invariably augments her delusions.

As for treatment, tonics seemed to make her worse, the bromides merely stupefied without altering matters, codeia did little, if any, good, morphine should under no consideration be given for fear of fostering a habit which would be as bad as the disease. Costiveness was troublesome, but disappeared upon using cod liver oil regularly. Empirically and for theoretical reasons I gave many different remedies, but latterly found most benefit from cod liver oil, chloralamid and a little quinine, and only the first named continuously.

She is better for a while upon changing locations, and I advised journeying, and, if convenient, a sea voyage.

G., mother epileptic, brother and sister died insane; nephew committed suicide while insane at the age of twenty-two; a paternal uncle and his son died insane, daughter of a paternal aunt insane, a niece's daughter became puerperally insane; three nieces died of "paralysis." Her first symptoms appeared during the birth of a child, the insanity lasting three years. At the menopause she became melancholy, and later developed delusions of grandeur; attacked a sister with a knife, and drove her relatives away; twice attempted suicide. She had, in addition to the bad heredity, been thrown out of a carriage and from a horse at the age of twenty, and both times her head was struck and she was rendered unconscious. She opened an art gallery on Wabash avenue, near Twenty-Third street, in Chicago, and accumulated property therefrom to the value of $50,000 while insane and irregular in money matters. She gave away costly paintings and artists suffered such pecuniary losses through her that she became notorious as "the picture thief." She gave a trust deed to a real-estate firm before being taken to an asylum, and her suit to recover her property was lost through the judgment of the court that, even though insane, she had been transacting business previous to making the deed, on her own account, and was accountable and competent to make conveyances.

J., a perambulating paranoiac, sold shares in Chicago in a "hydrostatic steam engine" he had constructed. He importuned

every capitalist in America by mail, and managed to dispose of some of his shares for small amounts. His circulars and receipts were signed with the appendix "P. P. S. and C.," which he explained meant "Prince of Peace, Saviour, and Christ." He was a megalomaniac who, with a better education, could have done more than earn a bare subsistence with his assertions.

Vines, a timekeeper for a manufacturing firm in Chicago, after a severe injury to his nose became morose and his character changed. His insanity was recognized generally, but not so well at the place where he was employed. He decamped with $4,000 through the connivance of a friend who sent him to St. Louis in a trunk; but that mode of travel became unendurable, and the baggagemen discovered him through the noise he made. He was adjudged insane and sent to a state asylum. The predisposing cause of his insanity was in degeneracy, as there were bodily stigmata, and the nose injury merely developed what was latent.

Henry Adkins fired a pistol on the floor of the Board of Trade in Chicago, in 1881. In the jail he told me that he had placed some $10,000 with brokers in Chicago from whom he could get no accounting, and that his own lawyer was leagued against him; that, failing in personal interviews to obtain redress, he adopted the plan of shooting merely to attract attention to his case, to force court proceedings, and enable the public to understand his grievances. He regretted having put bullets in the cartridges, or not having withdrawn them, as the noise was all he wanted to make, so as to insure his arrest; that he stepped to a pillar in the board room, where he thought that by firing upward no one could be hurt, and that an officer had pushed him back nearer the door. He said that he had not the slightest intention of pointing the revolver at Mr. Wells, and that a mere appearance of having done so was given by bystanders who grasped his arms; that he was a good shot and could easily have killed Mr. Wells at the time, but that nothing was further from his intention, as he did not believe that revenge is justifiable for anything; he merely wished to call attention to his case. He had written a pamphlet entitled "Bill Delivered; or No Tacit Compounding. An Addendum to the Policy of the Foldyard. Addressed to the Most Noble Marquis of Hartford by Henry Adkins, 1878." The article begins by quoting from C. Randall to Henry Adkins, Novem-

ber 2, 1874: "Take what steps you like to obtain your remedy." This open letter to the Marquis indicates that Adkins's father was a tenant of His Lordship, but that by unjust means a large portion of land had been taken away from the Adkins family, and to call attention to this Adkins had published a book called "The Policy of the Foldyard," in which he claimed £169 as the minimum due to his father. The pamphlet is dated from Salford Priors, near Eversham. Adkin's conversation was coherent and rational. He entertained high ideals of life and duty, talked philanthropically and with no trace of vulgarity. He claims to have been persecuted and that his only object in life is to do good He was not prosecuted, much to his chagrin.

CHAPTER XIX.

AGE.

Senility as a period and condition offers many problems in forensic medicine. The decline of life may be gradual or abrupt; the mental faculties may undergo every degree of impairment to their complete extinction; while, on the other hand, great vigor of mind may be retained far into a century of existence. While mind and body may suffer gradual decrepitude together, it is probably more common for some physical ailment to which old age is liable to overwhelm activity; in some instances also, sooner or later, impairing the mind, much or little; but as senile bodily diseases expedite death rather than insanity, the latter is less common among the aged than among the younger.

The physiology of old age is often inextricably bound up with its pathology; indeed, normal dissolution is both physiological and pathological; but there is a natural decline which may be described with some accuracy, eventuating in "death from old age" rather than from any of the disorders that so frequently terminate this epoch.

The sixtieth year in males and the fifty-fifth in females are usually assigned as the beginning of the period of senile involution, though in maturity, at about forty-five, the body has reached its so-called "prime." No particular age, however, can be fixed in all cases, for some are "old" at forty-five, and others have been known to be remarkably vigorous at ninety years, free from most of the physical and mental peculiarities that are common at sixty-five. The physical accompaniments of old age at, say the seventy-fifth year, may be enumerated as gray hairs; a wrinkled skin, more particularly of exposed parts of the body; loss of teeth; all the bones lose weight and are more readily fractured; the skull is thinner, and its sutures are obliterated; the eyesight, hearing, and sense of smell are often defective; the brain shrinks in size and weight; the bodily temperature is lessened and there is more susceptibility to cold; the circulation is slower, and the tortuous swollen veins of the temples and hands evidence venous stasis. Yet some of these signs of age may be absent; the hair

may not be whitened, the teeth may be preserved, wrinkles may be few, the eyesight may be good; but such things are exceptional. Youth abounds in activity while age is impelled to inactivity. The step is not elastic as in younger days; the walk is more deliberate at least, though less firm and heavy. The appetite is often lessened, in keeping with diminished excretions. Habits are fixed and the daily doings become a routine; while all the functions are lessened, and there is passivity rather than inclination to exertion. New fields are not sought out; but it is a solace to brain workers to know that the judgment is not only riper in advanced years, but that intellectual training and exercise undergone in earlier periods prevent mental disintegration, render insanity less liable, or modify it, if inevitable, and that often the studious person preserves mental resources that may largely compensate for the discomforts of advanced life.

The sleep of the aged person is not so deep as in early life; awakenings are more frequent; some habitually arise at an early hour; but debility may induce them to lie longer abed, though awake.

New views are not readily accepted or apt to make much impression. It is especially noticeable that religious ideas previously held are retained unaltered. Whether optimistic or pessimistic by nature, placidity and resignation are the rule in normal old age. The nearness of death is not usually regretted, partly from the blunting of sensibilities and partly from the growing tendency to look upon the end of life as a relief from worldly annoyances. Occasionally an aged person states that outliving the majority of one's friends helps to reconcile him to what cannot be avoided. Nominally the affections, the likes and dislikes, are firm; there may not be so much emotional demonstration, but the healthy-minded old person does not waver in love for spouse or offspring, though former partialities and preferences, as well as prejudices, are apt to persist, whatever their origin. But it is important to remember that normal old age is the time when animosities are viewed more rationally; there is likely to be more effort to be just; and the "softening effect of added years" is notorious; criticism is less harsh and the faults of youth are more easily forgiven or overlooked.

Expenditures and income are more carefully regarded than in

earlier life. Youth is the time of thoughtless extravagance; age curtails expenses to necessities. The parsimony of that time of life is suggested in Tom Hood's lines in which he refers to gold, as

> "Spurned by the young, and hugged by the old
> E'en to the verge of the churchyard mold."

Time apparently passes more rapidly as years advance. The first twenty years of life seem the longest. Time being measured retrospectively by events, the impressionability of youth as compared with that of later years causes the former period to appear to be the more eventful and hence the longer. The old person recalls the scenes, persons, and happenings of early days much more vividly than he does later matters of the kind. Medico-legally the differences between the ordinary and the diseased senile conditions of memory should be clearly recognized. As age progresses remote events are to a certain extent more readily remembered than recent ones. At least while there is an increased tendency to reminiscence, and youthful affairs recur to the mind more distinctly than they do during maturity, there appears to be a corresponding lack of importance about the events of to-day altogether disproportionate to their reality. For example, an old man may recall more distinctly the grief and terror he felt upon tearing his first pair of trousers when he was five or six years of age, than he can his melancholy over the loss of a fortune during manhood. The relative acuteness and obtuseness of the extremes of age often throw the recently acquired impressions, both in number and degree, into undeserved insignificance; and trifling occurrences of early days stand forth in memory, at times, with provoking distinctness. The old have difficulty in recalling the names of some persons,—especially those of acquaintances made late in life. It is a psychological fact that resemblances are more easily observed than differences; and so the old person may mistake one individual for another. The baby may see no difference between strangers and his parents. Education or long experience may enable us to discern decided differences where previously we had seen none. Identities are often confused by the insane; and in normal old age blunted recollection often causes mistakes as to persons, because resemblances are easier to note than differences.

As the imagination is less vivid and experience has developed judgment, there is a value in the counsels of the aged which is often not sufficiently regarded. They are not likely to be governed by their emotions. They are conservative and often hyperconscientious. Every extreme of ability and every type of character common to younger persons may be found among the aged. Previous traits usually persist; sometimes these are accentuated, or, on the other hand, they may be less obtrusive.

The necessity of the foregoing description of the more noticeable peculiarities of normal old age was suggested by a disposition, frequently observed in contested will proceedings, upon the one side to exaggerate the ordinary manifestations of a healthy-minded senility into evidences of mental decrepitude, and, on the opposite side, to interpret symptoms of insanity as characteristics of the waning period of life.

The doctrine that every case of insanity must be studied by itself, that the person must be compared with his former self, and that therefore there can be no test of insanity universally applicable, receives support from the reflection that what would be sane behavior in one person would be insane in another; that mental states which may be compatible with sanity at one period of life, if occurring at another would plainly indicate unsoundness of mind. Previous characteristics of the individual whose sanity is in question should be regarded in judging of the preservation of intelligence. Sicknesses common to all ages may afflict old persons often with as little disturbance of intellect as would be occasioned earlier in life; and severe diseases, especially pneumonia or *la grippe*, more often terminate life than induce insanity in the aged.

Disorders that often, but not invariably, occur may now be mentioned.

Two changes characteristic of old age are the calcareous and fatty degenerations. Cartilages tend to become rigid with deposits of carbonate and phosphate of lime; and in old age it is common for the elastic tubular arteries to be converted, here and there, into stiffened channels that render the distribution of nutritive materials more difficult, and thus tissue decay is hastened. Functional decline through structural change becomes apparent in the muscular and nervous systems; the intestines, bladder, and

other organs diminish in vigor; the eyesight is enfeebled, the optic media are clouded and the retina is blunted to impressions; sensory and motor impulses are slowed, the heart often becomes hypertrophied; but in extreme old age atrophy of that organ also occurs. In either event the circulation is poor, partly from the lessened force of pulsations and partly from the hydræmia, or relatively watery state of the blood, causing the cold to be more readily felt; and aside from the bronchitis, pneumonia, and asthma that cold may induce in the aged, they are so susceptible to reduced temperature that mortality is greatly increased among those about eighty years of age by continued and severe cold. Carpenter[1] cities from the report of the registrar general of England for 1855, an increase by 2,000 deaths over the average of aged persons, during six weeks when the temperature was 9.4° below the mean. Long and very hot summers are also disastrous because the natural debility of extreme age is thereby increased.

An enlarged prostate gland, necessitating the use of a catheter, is quite common after the sixtieth year. There may be feebleness of the bladder and bowels so that movements are neglected, with dribbling of urine from the overdistended bladder, and senile constipation. The latter should by all means be corrected, as it increases the liability to apoplexy. The offensive odor from dribbling urine, which also stains the clothing; sometimes the unintentional exposure, through carelessness in buttoning,—are misfortunes of many old persons; but they occur too often in those who are fully capable of managing their affairs and whose mental soundness could not be questioned, to allow such mishaps to be taken as evidences of mental unsoundness if unassociated with more important matters. Defective buttonholes and imperfect eyesight frequently account for apparent carelessness of the kind.

There may be headaches, dizziness, disturbed sleep, somnolence by day and insomnia at night, rheumatoid pains if not actual senile rheumatism, tremulousness, a slowed, inelastic gait, mincing or doddering, occasional flushings of the face; the back may be bowed, there may be reticence or loquacity in keeping with, or slightly changed from, previous exhibitions. Recent events may

[1] Human Physiology, 864.

be more frequently forgotten than is usual with other persons of the same number of years. Soliloquies or reminiscences may be indulged in to an extent a little tiresome to listeners. There may occur repetitions of questions, or the telling of a story or joke, within short intervals, two or three times, especially if alcoholics or medicines are taken. Inactivity may advance toward lethargy; listlessness may increase, with intervals of brightening or times when mental activity is greater. Some old persons incline to become obese, while others grow thin, emaciated, or their muscles atrophy. Bodily discomforts, such as come from stone in the bladder, rheumatic pains, perverted sensations, or other causes, may develop irritability (the testiness of age); or certain changes, within limits, may take place in the behavior, such as occasional irascibility or impatience. Fits of what might be called "unreasonableness," an inclination to find fault, to criticise, to be despondent, may develop; and there may be limited exhibitions of emotionalism, such as tearful or laughing spells, upon slight occasion.

All this and more may characterize what is usual in, or may accompany, senile involution, while the mind is not so affected as to incapacitate the aged person from properly managing his own affairs, though of course such things are not evidences of full mental integrity. Certainly the vigor and intellect were greater in preceding years. The legal assumption, frequently stated, that less mind is required to make a will than to attend to business, may be a convenient generalization, but it is certainly inapplicable to all cases, for the relative simplicity or complexity of the will or of business transactions may invert the rule in individual instances; as, when all the property may be in safe, uncomplicated investments, requiring little, if any, attention, and there may be many heirs with varying claims upon the testator's bounty, and he appends conditions to bequests and adds codicils. There can, however, be no presumption either as to the presence or the absence of a "disposing mind," based on senility with its concomitant debilities and many of its mental peculiarities. As a rule, self-interest is more carefully guarded in advanced years because of the recollection of instances of ingratitude to the aged, if for no other reason. As Chancellor Kent[1] said: "It is one of the

[1] Van Alst v. Hunter, 5 Johns. Ch. 160.

painful consequences of extreme old age that it ceases to excite interest, and is apt to be left solitary and neglected. The control which the law still gives to a man over the disposal of his property is one of the most efficient means which he has in protracted life to command the attentions due to his infirmities."

Being aware of the influence of "expectations" it is not to be wondered at that occasionally cynicism may prompt the speech or acts of the patriarch, with the liability of misinterpretation as evidence of mental disorder. Other and simply physical matters have been so misconstrued. The senile presbyopia, cataract, or other eye deficiency, has led to inability to recognize old friends upon occasion, and to the charge of grave mental failure. An accumulation of wax in the ear, or partial deafness, has prevented an aged person from acknowledging a salutation with the same result. Untidiness, causing tobacco stains on the books, papers, or shirt front, due to combined feeble jaw control and imperfect eyesight, has been urged in evidence as indicating mental impairment. Dropping off to sleep during a conversation—an incident of senility not indicative of mental failure—has been cited to prove insanity.

Peculiarities of letter writing, chirography, phraseology, or spelling, may be hastily seized upon to show mental failure; and these are frequently proved to have been lifelong or of common occurrence among old people who are not regarded as mentally unsound. Mistakes in addition or other calculations, childish pictures scribbled in account books, have been shown by one side, to be promptly met with similar, if not more numerous, instances of the same things through many preceding years.

Acts or remarks which appear to show mental failure may have no such significance upon investigation, and plausible explanations are sometimes forthcoming to account for really insane deeds or speeches as compatible with sanity.

Particular care should be taken not to construe conditions due to drug using as evidence of a mental breakdown. While old age is liable to numerous diseases and to react badly to any of them, and comparatively slight ailments sometimes prostrate or cause death, bodily rather than mental complications are more apt to ensue therefrom; though, of course, both mind and body may suffer, and there are instances where it is impossible to

determine whether the mind is impaired or not. Mental weakness may readily be mistaken for mental derangement. The weakened mind of the old person may make him disinclined or unable to exert his intellect, which may be otherwise fairly, if not wholly, intact; as legs or arms may be tired without being paralyzed. Latent intelligence capable of being aroused is a different matter from mental dissolution.

There are extreme accumulations of senile decrepitude that may threaten life, and yet the mind may be, for practical purposes, not overthrown in a medico-legal sense. There may be perverted sensations and even impulses, urgent sexual appetite, emphysema of the lungs, bronchitis, asthma, labored respiration, loss of the speech or writing faculties, paralysis agitans, multiple sclerosis, arterial atheroma, some pachymeningitis, aneurisms, endocarditis, occasional hallucinations, illusions, or delusions, the judgment may be self-recognized as insufficient, and there may be more and more reliance upon others for advice; momentary childish fretfulness may be exhibited, and at times hypochondriacal depression; recent events may be very imperfectly recalled, and even early events at times may be a little difficult to remember in detail; garrulity, within limits, may become apparent. All such disorders, and more, may overtake the decline of life and be consistent with mental soundness, within the meaning of the law, sufficient to enable the old person to manage his or her own business affairs, to make contracts, convey property, or make a will, etc.

Yet bodily disorganization eventuates in many cases in loss of mind. There are limits where physical involution of necessity involves mentality; but there are no precise limits. One person may become demented at the same stages of senile disease at which others may maintain intellectual life. Mental decrepitude may even precede most of the bodily debilities of old age; and, on the other hand, great suffering and structural senile decay may leave the mind clear up to the moment of death. In many cases the mind and body are deranged together, *pari passu*, but there is no rule of association.

Organic brain disease may exist in anyone without mental impairment. Tumors, ruptures of blood vessels, embolisms, thromboses, and a host of other direct and indirect injuries to certain

parts of the brain, are not necessarily destructive of mentality; but of course such things *endanger* the mind, and we may reasonably expect insanity to follow upon structural degradation of the seat of intellect of anyone, young or old. Further, the brain of the old person is more liable to such disorders; the arteries are not so strong, the brain shrinks in size, and sclerotic patches develop, the membranes thicken, and altogether it may be admitted that an unhealthy condition of the brain substance and associated organs, such as is common in senility, renders insanity in some form imminent, usually that of dementia; but it is an independent matter of fact whether such result of brain disease has accrued or not.

Clouston[1] sums up physiological senility as "no reproductive power, greatly lessened faculty, diminished power of attention and memory, diminished desire and power to energize mentally and bodily, lowered imagination and enthusiasm, lessened adaptability to change, greater slowness of mental action, slower and less vigorous speech as well as ideation, fewer blood corpuscles, red and white, lessened power of nutrition in all the tissues, a tendency to disease of the arteries, a lessening in bulk of the whole body, but notably of the brain, which alters structurally and chemically in the most essential elements, the cellular action and the nerve currents being slower, and there being more resistance along the conducting fibers."

Senile insanity is a term often improperly used as a synonym for senile dementia. It should be understood that senile dementia is *the* insanity of old age, and that many forms of mental disease are no more peculiar to advanced than they are to early life. Typical melancholia has occurred among old people, with complete recoveries. Senile insanity would include mania, melancholia, senile dementia, etc., generically; while there is but one specific form of insanity of senility. Old age may modify any kind of sickness, but such designations as "infantile," "juvenile," "senile," can have no value as prefixes, beyond indicating the periods of the occurrence; and the word "insanity" is also too general to be restricted to so definite a form of mental disorder as senile dementia. Though captiousness as to precision

[1] Mental Diseases, 395.

of terms belongs to an earlier century, it is as well to attempt exact nomenclature, if violence to widespread custom is not risked.

Senile dementia has been well defined by Spitzka as a "progressive and primary deterioration of the mind connected with the period of involution, but exceeding the ordinary extent of such involution to a pathological degree."

It is a common error that senile dementia consists in a mere exaggeration of ordinary senile peculiarities; when in fact that psychosis has characteristics aside from those observed in old age. Some senile traits are much more pronounced in this form of insanity than they are in normal old age, even with superadded diseases that so often complicate senility; but this mental derangement can only be regarded as exaggerated senility in the sense that any and every form of insanity exaggerates normal dispositions. Sadness and melancholia, activity and mania, inactivity and dementia, could be thus superficially correlated. Often there is a positive inversion of senile traits, as when active disregard of the rights of others takes the place of the calmness and dignity of old age.

Predisposing causes undoubtedly precede the senility, which cannot be regarded as the exciting cause of senile dementia, just as the puerperal state, puberty, or the climacteric period, *alone*, do not induce the insanities that occasionally follow upon such events. Otherwise every old person would tend to develop senile dementia, every youth would be in danger of hebephrenia, and childbirth would always have insanity waiting upon it; all of which is far from being the case.

Among the usually assigned latent or predisposing causes of senile dementia, heredity is probably less active than other influences, for, as Clouston[1] remarks: "The facts about heredity were further back and more forgotten than in any other form of insanity; an old man's living relatives are few and his ancestor's history far off. We may put it down as a certain law of nervous heredity, that the stronger the predisposition the sooner it manifests itself in life, and the weaker it is the later in life it shows itself. To have survived, therefore, the changes and chances, the crises and perils,

[1] Mental Diseases, 396.

with intact mental function till after sixty, means slight neurotic heredity, or great absence of exciting cause of disease." Mental worry and exhausting application to any pursuit, whether intellectual or not, would co-operate with senility in a mental breakdown. Alcoholic overindulgence often lends an impetus to insanities in general; and by hastening brain degeneration, especially through changes wrought in the arteries, intemperance is potent enough as a predisposing factor. Syphilis, it is claimed by some alienists, underlies a large percentage of cases; but its importance in this regard is still under discussion. Its protean manifestations lend color to the claim that senile dementia may be an episyphilitic condition. Debilitating influences in general may be made to include excesses, sicknesses, and the like, as predetermining senile dementia; but the entire matter of etiology as related to this disease is rather speculative, as unknown causes exist. In the main we know that some old persons become senile dements, while the vast majority do not.

The age at which this form of insanity develops is usually between sixty and sixty-five, and the cases gradually lessen in number from the latter period to ninety.

Forgetfulness is the first symptom which usually attracts much attention, though the "irritable perversity" mentioned by Anstie, as well as increased insomnia and circulatory and emotional changes for the worse, may precede, accompany, or closely follow upon the memory lapses. Headaches are also among the earlier symptoms. Maniacal excitement may occur at any stage, in some instances a furiously destructive outburst of unreasonable anger is the first event that convinces others of the mental derangement.

Bevan Lewis[1] states that the power of abstract thought suffers early; complex reasoning becomes a painful effort; mental processes generally become simple and more automatic. "Reduced to an automaton in every sense of the word, his habits of life are simple in the extreme; and all his feelings, thoughts, and utterances savor of sameness and repetition. Of all the insane, the senile dement is the one whose habits of life are most stereotyped, and whose actions generally and speech are least variable, and, therefore, most predicable. . . . The maniacal out-

[1] A Text-Book of Mental Diseases, 414.

bursts of these senile dements are often revolting from their degraded habits and utter disregard of all decency."

But there are many grades of senile dementia; some are quiet, others are very troublesome, and still others are variable.

As Lewis[1] further remarks: "Many cases of senile dementia present for some time a gradual, progressive mental enfeeblement, without any notable degree of excitement. A constant unrest, a mild depression, with very vague fears and ill-defined notions of causing trouble prevail, often associated with distrust and more definite suspicions of persecution."

In discussing senile amnesia the same author[2] notes: "That the latest acquisitions and powers suffer earliest is also exemplified in the failure of memory for foreign languages, for late intellectual operations of abstruse nature, and, in fact, for all recent additions to the individual's knowledge; the more specialized knowledge always fades soonest. So proper names are forgotten; a father may fail to recall his children by name, although he recognizes each individually; or a patient, daily attended by nurse or doctor for years, may be unable to recall the name of either. Substantives are liable to be forgotten; as indicated by the hesitating speech and usually a dead stop at a noun."

Several authors give us descriptions of senile dementia which can with advantage be repeated in their own language. Each article has its special value; one writer brings forward essentials that others have omitted. Spitzka's contribution to the literature is quite important. He says:[3] "A certain degree of mental enfeeblement is an ordinary accompaniment of old age, and cannot be considered pathological. Simple diminution of the mental powers, and the intensified conservatism, lethargy, and habits of economy incidental to senility, do not constitute a true insanity, and therefore should not be called dementia. But when the ordinary limits of these conditions are exceeded, when lethargy becomes fatuity, when conservatism becomes suspicion, and penuriousness provokes delusions of attacks on property, the senile subject is the victim of an insanity which is only found with the aged, and is therefore called senile dementia.

[1] Ibid. 417.
[2] Ibid. 423.
[3] Manual of Insanity, 171 *et seq*

"Senile dementia is to be considered as an entirely distinct conception from 'senile insanity.' Senile insanity, so called, includes senile dementia, but senile dementia does not include all of senile insanity. Any form of ordinary insanity, such as mania, melancholia, dementia from active organic disease, and paranoia, may be found in the aged, and present, at least in the main, the features which characterize these affections at other periods of life. There is, indeed, no need for discriminating between senile and other periods of life as far as the ordinary forms of insanity are concerned. There is no senile mania, any more than there is a middle-age melancholia, or an adolescent stupor; and it is best to speak of the ordinary forms of insanity as mania, melancholia, or paranoia in a senile subject. The only characteristic form of senile insanity is the one now about to be considered. Senile dementia should not be confounded with other conditions occurring in old age, of which mental enfeeblement may be a symptom. There are certain gross organic diseases affecting the brain in advanced life, which produce a set of symptoms often and improperly classed as senile dementia. Thus, an old person, after a paralytic attack due to hemorrhagic or necrotic brain lesion, may become feeble-minded, forgetful of the proprieties, morbidly irritable, and filthy in his habits. Such a condition is, however, a complication of what is commonly recognized as an ordinary brain disorder which may produce similar results at any period of life; there is nothing essentially senile in its character, although it is more frequent in the senile state because the conditions causing it are more common in the aged than in the young. Paralytic and epileptiform seizures may be accompaniments of senile dementia, but in that case they are epiphenomena, and not essential features of that psychosis. This disorder begins as a senile dementia, and is not secondary to other affections, as are the forms of dementia from coarse organic disease just alluded to. Senile dementia is to be attributed to a slowly progressing marasmus of the nervous tissues transcending the ordinary degree of intensity; to which more active nutritive changes, in the way of encephalomalacia, or hemorrhage, may or may not be added. The complicating dementia occurring in old age after coarse disease referred to above, and which is distinct from it, is constantly and characteristically associated with such coarse disease.

"Senile dementia is manifested by an increased egotism, or by penuriousness, which sometimes reaches such a degree that the millionaire may starve in the midst of his or her millions, and, though residing in a palace, grovel in filth. The memory becomes enfeebled, particularly with regard to recent events, while those of an earlier period of life may be well remembered. It thus happens that senile dements frequently lose their way in the streets, do not recognize their own houses or apartments, and confound the property of others with their own. Prejudices are formed on trivial grounds, or on no grounds at all; and wealthy senile dements have in all ages been made the subjects of speculative and designing persons, to the detriment of their real interests and of those who were the subjects of their natural affection in the healthy period of these patients' lives. As the disorder advances the memory continues to decrease; the incidents of whole years seem to be blotted from the mind; and patients have been known to forget the names and number of their children, or even that they had been married, when such was the case. A profound moral deterioration is frequently a marked accompanying feature. Coarse and vulgar expressions are used by persons previously accustomed to select language, or the patient becomes filthy or intemperate in his habits, and assaults or scolds his children, treating them and the servants like dogs. To this may be added—particularly in male persons—a pathological sexual desire, a senile satyriasis, which with some manifests itself in indecent assaults on young girls, or even on infants, and with others in absurd and ridiculous marriage plans.

"While some senile dements exhibit delusions of an ambitious character—always unsystematized, however—the majority have depressive delusions, and rare instances are on record where senile dements have committed suicide, either in consequence of such delusions, or because they recognized their deteriorating mental condition.

"The chief and most common delusions of senile dements relate to their property. They suspect that they are being defrauded or robbed; in consequence they take what they think are the best measures to prevent defraudation and robbery. If their property is in the charge of an agent, they will discharge him and employ another, and another, till they find one who possesses

the undesirable qualifications necessary to the management of a senile dement,—for experience teaches that intrigants and time servers have had more success in this direction than straightforward and independent business men or the honest friends of the patient.

"The anxiety as to security of their possessions, and their delusions of robbery, produce a lachrymose disposition and a restless and purposeless activity in these patients. Some of them roam about at night continuously, watching for thieves, while other patients do so without being able to give any reasons for their acts whatever. Others are continually engaged in devising new fastenings for their doors and windows, and new hiding places for their treasures. Hallucinations and illusions may complicate this phase of senile dementia, and the patients then cry out that they are being murdered, robbed, burned up, cut to pieces, or poisoned.

"Should no other intercurrent illness cut short the course of the psychosis, bedsores and colliquative diarrhœas close its history. Sometimes affections of the bladder are very troublesome toward the end of the patient's life, and may lead to fatal cystitis or pyelitis; indeed incontinence of urine is one of the most constant physical accompaniments of senile dementia from its inception. If the patient lives long enough, complete fatuity sets in; he may then become voracious and filthy, to finally die with apoplectiform symptoms, or with those of a gradual and general paralysis. Aside from a temporary improvement, which is exceptionally observed in those cases where the delusions have a melancholy tinge, the progress of senile dementia is chronic, and consistently in a downward direction.

"The physical indications of extreme age are always found in senile dementia. The most important of these signs, because it is related to the cerebral condition, is arterial sclerosis; the radials are hard, giving the impression to the finger of a tendinous cord, instead of the normal arterial resilience; with this the temporals are tortuous. Often there are observable a marked *arcus senilis*, opacities of the vitreous body, and sometimes cataract, as expressions of a vitiated state of nutrition. An invariable symptom is tremor, but this does not differ in degree from that which is commonly found in very old persons. In certain patients marked

hyperæsthesia has been observed by Güntz,[1] and vertigo, anorexia, paraparesis, hemiparesis, disturbances of speech, and epileptiform attacks have been recorded in others. It is cases presenting these symptoms, which are associated with more considerable cerebral atrophy and nutritive as well as membranous lesions than the ordinary ones, which have suggested the view that paretic dementia is a pre-senile involution of an active type."

Senile dementia should be judged wholly by the mental symptoms of the patient; the physical are such as may appear in any old person. The senile dement may be free from many bodily symptoms noticeable in old age; while on the other hand great physical disability may be seen in many old people whose minds are not affected.

In the second paragraph of the following from Wm. A. Hammond,[2] there is an inadvertent mention of peculiarities that are frequent, as if they were invariably found. For example, it is not always the case that the children may not be recognized, yet the wording unintentionally conveys that impression.

"Senile dementia is that form of insanity which occurs as the result of old age, and which is characterized by the decay of the mental faculties. Spontaneously it rarely makes its appearance before the sixtieth year, and generally not till after the sixty-fifth or seventieth. It may, however, as a consequence of wounds or injuries or of some exhausting disease, ensue at even the fiftieth year.

"The first symptom noticed is almost always a weakness of the memory, and this is soon followed by other evidences of failing intelligence. The patient ceases to recognize persons whom he has known for many years, and even his own children are mistaken for other persons, he forgets where he lives, and cannot even find his way from one room to another in his own house. Owing to this failure of the recollection he repeats over and over again such anecdotes as his intellect enables him to comprehend, forgetting that he has told them probably not ten minutes before.

"It often happens that radical changes in the character and disposition are among the earliest phenomena. From having been

[1] Allgemeine Zeitschrift für Psychiatrie, xxx.
[2] Treatise on Insanity, 594.

liberal and generous in money matters, he becomes avaricious and penurious to an extreme degree, grudging every little item of household expense, and living, if left to himself, in a way scarcely befitting one of the lower animals. Occasionally there are periods of low delirium, marked by illusions and hallucinations, and by various morbid fears, or by delusions in regard to his personal safety. He is exacting in his demands, and readily imbibes ideas of neglect on the part of those about him, or of persecution or injury. At the same time he begins to show signs of lack of carefulness and tidiness in regard to dress and personal habits, and finally reaches a stage in which propriety and decency are entirely disregarded.

"The failure of the power of the attention is another one of the evidences of diminished mental strength, it being often impossible for the patient to concentrate his perceptions or his intellect upon any matter to which they may be directed. As in the other forms of dementia, the emotions, especially those of an entirely selfish character, are sometimes unduly exhibited in a weak and childish manner. The speech is very frequently incoherent from an early period, and is always so in the later stages of the disease.

"The power of the will is generally greatly diminished and sometimes utterly abolished, the patient relying altogether on those around him for guidance, or, rather, being perfectly passive in their hands. At times, however, a spirit of unreasonable determination or obstinacy is developed, in regard usually to some trifling matter, but again to a subject of great importance. I have known a patient in an early period of senile dementia, when her ability to manage her affairs was still recognized, to refuse to sign receipts for money paid her. She could allege no reason for this conduct, but simply declared that she would not sign them. On another occasion, she persistently refused to affix her signature to the deed of a piece of property she had sold a few days before. When asked if she desired to recall the sale she said no, but that she would sign no papers; they must get along without her name; they might take the land, but she would sign nothing. She had no reason, except that she would not put her name to the paper in question.

"In a few instances that have come under my observation, in-

tense animosities have been engendered on the part of senile dements toward relatives and friends, and especially children. I have known a patient to deliberately inveigle a young child into approaching her closely, and then to seize her and pull her hair, pinch, and scratch her. The like tendency to injure relatives and friends is sometimes shown in the disposition they make of their property by will. It is always a suspicious circumstance, indicating mental alienation of some kind, and in old people usually senile dementia, when such persons leave their estates away from those who have taken care of them, or with whom up to recent dates they had been on terms of affection, to missionary societies and other organizations of the kind.

"In senile dementia there are occasionally periods of excitement approaching acute mania in their intensity, during which there are illusions, hallucinations, and delusions, with impulsions to the perpetration of acts of violence. Again, there is, especially in men, not infrequently a reawakening of the sexual appetite; and as the instinct is not sufficiently controlled by the reason, and as the power is rarely restored to an extent commensurate with the desire, various indecent and immoral acts, coming under the head of what Tardieu calls *attentats aux mœurs* are committed. The records of the police courts abound with cases of the kind, in which old men are accused of obscene conduct with little girls and boys, and in which the existence of senile dementia can be pleaded in extenuation.

"The course of senile dementia, resulting, as it does, from regressive changes in the brain-tissues, is progressively onward to complete mental annihilation and eventually death."

As to the lack of tidiness and carefulness in dress and personal habits, some patients may continue lifelong habits of neatness far into senile dementia, though the generalization of untidiness would be true of all cases eventually. Again, instead of the antipathy to relatives, mentioned by Hammond, some show rather the opposite; as, an exaggerated affection for all or particular friends or relations may be exhibited. But decided changes from previous likes and dislikes, especially if unreasonable, may be considered as dependent upon the disordered mind.

Stearns[1] states: "In case the person is widowed, he not unfre-

[1] Mental Diseases, 309.

quently proposes to some person young enough to be his granddaughter, or possibly to the servant girl in his own house; and against the protests of his children and friends he persists in marrying her, and often disinheriting his own children in favor of his new alliance. In other cases the sexual tendency becomes so pronounced that the patient disregards all forms of decency, and gives the lie to the experience of a life of the highest character and respect, before his family realize that he is insane.

"The memory generally fails first, and more especially in relation to daily and hourly experiences and transactions. The individual cannot tell the day of the week or the month of the year. He does not remember the names of his own children, or those of his friends or neighbors; whether he has paid a bill, or been paid; and later on, in the progress of the disease, he fails to recognize the members of his family; loses his way on the street; does not know his own house when he sees it; frequently insists that he is not in his own house and demands to be permitted to go there; becomes suspicious of those about him; thinks they are strangers and are trying to rob him; has illusions of sight, and thinks persons whom he sees are others whom he saw years before, and insists upon calling them by some names heard and remembered long ago; frequently has perverted sensations, as of cold when the weather is hot; and will insist upon having a fire made in July, or in putting on quantities of thick clothing when everybody is sweltering with the heat, and, when the weather is cold, in going out without extra protection.

"The failure in memory, the perverted sensations, imperfect perceptions and illusions, render such persons in an institution, or anywhere else, exceedingly troublesome, so that they require constant care and supervision. They are all the while getting into other person's rooms and failing to find their way to their own; they mistake the fireplace for a urinal, and a lavatory for a water-closet; they soil their clothes and beds; become obstinate and apparently resentful of all that is tried to be done for them; will insist upon getting out of bed, especially at night, pull the clothes and mattress off, and pile everything up in a corner of the room; move the bed against the door; pull down the curtain of the window; shout and scream that robbers are about; that they are being killed; and when one comes to their aid, will strike and kick

and resist to the very last every effort to assist them to a better understanding and experience of their surroundings, under the impression that they are defending themselves.

"The physical conditions as to strength and agility change greatly from time to time, and appear to have some correspondence to the excited or depressed states of the mind. The amount of physical energy and endurance which some old men, who appear to be just ready to topple over into the grave to-day, may exhibit next week, while under the influence of marked changes which will occur in the brain and the resultant impressions and delusions is very remarkable. They rarely remember anything about it after the period of excitement, or the force of the hallucination which gave rise to it, has passed away. At other times they sit for hours wherever they are placed, or lie in bed saying nothing and with difficulty understanding anything said to them. Sometimes dim memories seem to flit across the mental horizon at the sound of some name or voice which has excited into vibration or molecular activity some channel of thought or nerve cell which has been dormant or become half disintegrated."

Clouston[1] speaks of their hallucinations of hearing, morbid eroticism and physiological immorality; their liability to marry, and develop morbid suspicions at the beginning. He mentions an old lady who dismissed her old faithful servant two or three times a week for stealing her clothes, and another who thought her neighbors came into her house to rob her of her money. "The characteristic of the senile suspicions is that they refer to things that are possible to happen, to stealing of clothes or money, to faithlessness on the part of near relations, etc., and do not refer to the impossible things that cases of monomania of suspicion believe, to electric and mesmeric agencies, or to elaborate social plots. The senile cases are constantly changing in their suspicions and fancies, too; one day it is one thing, another day another. In a few cases food is refused,—a very troublesome and grave symptom. To feed an old man or woman by the nose or stomach tube does not seem, somehow, to be followed by such good results as the forcible feeding of younger patients."

Seven per cent of Clouston's cases of insanity in old people

[1] Mental Medicine, 404.

died in the first month of residence at the Edinburgh asylum, and more than half of the 30 per cent of all senile insanity cases who died succumbed in the first six months of their stay; that being a considerably earlier period of death than occurs in most other forms of insanity.

Kirchoff[1] describes peculiarities of senile dementia which every alienist will recognize as familiar:

"Forgetfulness first becomes noticeable. Memory for recent events first fails, while the memories of early childhood may be even more vivid than usual. A certain loquacity and tendency to diffuse repetition of the same stories may increase this appearance, but these very repetitions show that memory is impaired. If this forgetfulness is noticed by the patient it leads him to make false statements as a sort of excuse for his conduct. He becomes irritable and mistrustful; if he mislays anything, he maintains that it has been stolen or mislaid by others. The same mistrust induces him to conceal things, in order to guard against robbery. He often does not know his own property and appropriates that of others, without any special tendency to theft. He exhibits a restless, busybody manner. By day and night he rummages among old papers and other objects. A brief tired feeling often overcomes him during the day, in the midst of a conversation or during a meal. He pockets useless objects, valuables, tools, stumps of cigars, etc., and offers violent resistance when an attempt is made to take them away. His restlessness drives him into the street, where he makes senseless purchases, and only returns home by accident or after going a roundabout way.

"Soon the patient mistakes windows for doors, or may injure himself severely; he handles dangerous articles regardless of danger to himself or others. Many commit gross offenses against good manners and morals, make sexual attacks, especially upon children. The sexual sense, in general, is intensified, and the impossibility of normal gratification leads to many immoral acts.

"Obstinacy, vanity, and great selfishness are added to these symptoms; resistance to impracticable plans rouses the temporary anger of the patient. The extinction of the emotional life is shown in the lack of sympathy toward his family; any effects

[1] Handbook of Insanity, 263.

which are noted are superficial. The patient often fails to recognize his own relatives and forgets their names.

"At this time the anatomical basis of the morbid process is often manifested distinctly by slight spasmodic seizures, temporary paralysis of single nerves, vertigo, aphasic disturbances. Remarkable improvement may also be noticed, but in general the dementia increases progressively. The patient dresses wrongly, puts his legs in his coat, draws his stockings over his hands, attends to the wants of nature wherever he may happen to be, and handles the excrement.

"As a rule, hallucinations and delusions are absent in this pure form of dementia. As a matter of course, they may be present when the condition has begun with melancholia or mania. A feeling of loneliness is expressed; statements are also made that nothing exists, that the world has been destroyed. Definite delusions relating to the patient's person are also found, such as that he is not supplied with food. Imbecile ideas of grandeur are most frequent, such as revelling in gold, which is looked for in the hands that are smeared with fæces. There are rarely true hallucinations, usually only errors of observations.

"This sad picture is sometimes relieved by the retention of some pleasant traits of the former life. In fact, the childlike, not the childish and foolish, elements, may predominate. When the naughtiness of childish conduct, uncleanliness, and violence predominate, the interruption of the course of the disease by apoplectic attacks may prove a real relief to the family. Now the bodily decay becomes prominent; the voracious appetite is replaced by anorexia, often on account of digestive disturbances from overloading of the stomach. Insufficient sleep accelerates the decay of the vital energy, and the patient is compelled to take to bed. Somnolence may next develop. On awaking, a slight excitement may begin, but finally the word images are lost as an expression of ideas. The dementia is gradually shown more and more in the expression, and apathetic dementia is often the termination unless death results from some bodily disease, such as pneumonia or intestinal catarrh. Death often results from simple loss of vitality.

"The disease lasts several years, in rare cases only a few weeks."

My records of senile dementia cases average a duration of two years until death.

Old as is the work of Isaac Ray, his Medical Jurisprudence of Insanity contains portions that are well worth perpetuating. He stated:[1]

"Senile dementia, it must be recollected, is something more than that mere loss of mental power which results from the natural decay of the faculties. It is so often the subject of medico-legal inquiries, especially in connection with wills, that it deserves particular attention. It is attended with those pathological changes also which are essential to the production of insanity. The mind is not only feeble, but it is deranged. Were it not so, every old man would labor under a certain degree of dementia. The first symptom which indicates the approach of this affection is generally an impairment of the memory of recent occurrences. The events of early life have lost none of their distinctness, while recent impressions are feebly made, and in a short time mostly forgotten. While the visits of his friends are forgotten beyond the day or week they are made, the patient may talk of their former interviews, and relate the most trivial details concerning them. From this weakness of memory seems to arise, oftentimes, the first appearance of mental alienation. The patient forgets the intermediate ideas, the connection between those he does remember, and that order and filiation of them necessary to sound reasoning are destroyed; and hence those gaps in his ideas and those inconsistencies of conduct which convey the impression of mental derangement. Coincident with the failure of the memory, or very shortly afterwards, there is a diminution of the ordinary ability of recognizing external objects, which arises, not so much from weakness of the organs of sensation, as of the organ of perception within. That is, the impressions of sound, light, touch, etc., are well enough received, but the qualities of form, size, weight, color, etc., are imperfectly discerned. Objects not very different are mistaken for one another, from an inability to perceive at the first sight the qualities that distinguish them, though the individual may recognize his mistake when it is pointed out to him.

[1] Op. cit., 295 *et seq.*

"Thus far there is nothing that can properly be called mental derangement; the pathological changes in the brain have only occasioned a diminution of the natural power and activity of the mind. The first symptom indicative of derangement (and it is the next which is observed) is a degree of incoherence in the ideas, like that of dreams. It may not appear for days or weeks together, or only on certain occasions. The above symptoms increase in intensity more or less rapidly until complete dementia is produced, when all the moral and intellectual powers are involved in this state of decay and derangement. The memory of recent impressions fades away as fast as they are formed, and the past is beheld with considerable indistinctness and confusion, though events and acquaintances of early life are not yet forgotten. The patient is often at a loss to know where he is, or thinks himself at home when in another house, and wonders why he is not engaged in his usual occupations. Places, times, and circumstances are forgotten or incorrectly remembered. His friends are not easily distinguished; morning, noon, and evening, yesterday and to-morrow, are being constantly blended together; and he will get up in the night, mistake the light of candles for that of day, and persist in calling it morning. Objects the most dissimilar are mistaken for one another, and consequently his notions are often the most grotesque and absurd. The intellect gradually becomes incapable of discerning the relations of cause and effect, and of comparing ideas together; in short, anything like an effort of reflection is beyond its powers. The person is unable to follow the conversation, unless it be of the simplest kind and particularly addressed to him.

"Although such is the ordinary course of senile dementia, it sometimes begins with a general nervous excitement, accompanied by an excitement of some particular function which is exerted with a new and unaccustomed energy that deceives the old man and imposes on his friends. Thus, some are irritated by the slightest circumstances, and are very active and ready to undertake anything. Others experience venereal desires that have been long since extinguished, exciting them to conduct directly contrary to their ordinary habits. Others who have previously been temperate and sober, manifest an appetite for high-seasoned dishes and intoxicating drinks. These symptoms of excitement

however, are soon succeeded by those of dementia, and the transition is sometimes quite sudden, especially when the patient is restrained from gratifying his unreasonable desires.

"The same decay which the bodily powers exhibit as they proceed to their natural termination in death is always participated by the mental; but it sometimes happens that the latter are irretrievably affected long before the former have shown any symptoms of faltering in their course. The causes of this inversion of the natural order of decay, so far as they are external, are to be found probably in the great irregularity of exercise, both of kind and duration, to which the brain is subjected by the habits and wants of a highly civilized condition, whereby its healthy elasticity and vigor are so impaired that it needs only the first touch of decay to lose forever the nicely adjusted balance of its faculties. The transition from the greatest mental exertion to the most tedious inactivity, from the various phases of excitement to the irksome sameness of *ennui*, from the stimulus afforded by the performance of a thousand duties, and the glow that is constantly kindled by the hopes of the future, to the monotony too often occasioned by the loss of business, of friends, and of long-accustomed pursuits, is of such frequent occurrence that everything like regular and proper exercise, which is as indispensable to the health of the brain as it is to that of every other organ, is but imperfectly practised by a large proportion of men.

"In the later periods of life,—and particularly if the constitution be weakened by sickness or dissipation—any exertion of the mind far beyond its power to sustain is liable to be rapidly followed by a state of dementia. The same effect is produced when, after many years of unremitting attention to certain pursuits, the mind is suddenly deprived of the objects on which it rested, and thrown upon itself to furnish the means of excitement in the declining years of life, when novelty presents no allurements, and the circle of earthly prospects is being constantly narrowed. Take an individual from the stir and bustle of a city residence; from the unceasing strife of competition in the pursuit of wealth or honor; throw down the goal on which for years his eye has rested, though ever receding from his grasp; place him in the country, at a distance from familiar faces and scenes—and unless his mind be informed with various knowledge, or warmed by an

interest in the moral concerns of his fellow men around him, it will sink into that state of inactivity so favorable for the operation of the predisposing causes of this disease.

"It must not be supposed that old age is subject to no other kind of insanity than that of dementia; for mania, even of the severest description, is not uncommon at this period; and the importance of distinguishing between them, in a legal point of view, must be immediately obvious. Not only may the mind remain competent to the discharge of some of the civil duties of life, in mania, but there is always a prospect of its restoration to health. The characteristic symptoms, as well as the exciting causes that we have described above, if carefully observed, will generally prevent us from committing the serious mistake of confounding them together, as is too often done, with scarcely a thought of the impropriety of the practice."

The firmness of handwriting lessens with age, but not uniformly, for at ninety the writing of some may be less tremulous than that of others at seventy. The handwriting of a senile dement may be firmer and less shaky than that of the ordinary aged person, as the former may write slowly and form his letters with great care; but what senile dements write betrays their incoherency of thought, want of consecutiveness, disposition to complain about trifles, egotism, and tiresome inclination to repeat. Long hours may be spent by them in scribbling notes, often addressed to the same person, and piles of unfinished or unsatisfactory letters may, after days of stupid examination, be destroyed by them. Erasures, underscoring, omissions of words or letters, or their repetition, mistakes in spelling (differing from and more frequent than errors habitually made earlier in life)—characterize their attempts at letter writing. Accounts will be bungled, or more likely will be neglected. Even in the early stages of senile dementia correct bookkeeping, or the recording of simple transactions, will be next to impossible. But it is to be remembered that physical disability of some kind, through suffering or general feebleness, may cause the sanest of old persons to relinquish many accustomed habits, business or otherwise, requiring efforts beyond the strength. Thurnam[1] concludes from comparisions of

[1] Bucknill & Tuke, Psychological Medicine, 164.

asylum with general population statistics, that insanity of any sort is less frequent among the aged; but Spitzka[1] thinks that "it may be assumed that the proportion of senile dementia is much greater than the one shown by asylum statistics, as only the agitated and troublesome patients suffering from this malady are sent to asylums." He estimates the proportion of senile dements in asylums to other insane at 3½ per cent.

Garnier[2] found among 8,139 insane (4,831 men, 3,308 women) 437 cases of senile dementia, of whom 150 were males and 287 females. This would make the proportion of French cases of senile dementia to other forms of insanity 5.36 per cent; the females being about two thirds of the whole number. Or, upon the relative proportion of the senile dements to each sex insane, the males afford a percentage of 3.10 and the females 8.67. Ten years (ending in 1887) English statistics of 136,478 cases of insanity ascribe old age as a cause in 3.8 per cent of male and 4.6 per cent of female instances. So, senile dementia may be said to approximate 5 per cent of all cases of insanity, females preponderating.

Cases of Senility and Senile Dementia.

H., ninety years old, a well-known Chicagoan, prides himself on his good mental and bodily health and activity; jumps on street cars in motion.

P., a physician eighty years of age, is physically feeble from rheumatism, but maintains much of his intellectual acuteness and is still in office practice. At seventy he was one of the most active, intelligent, aggressive, and generally admired physicians in the city.

B. On account of an attack of *la grippe* which disabled him, and considerable deafness, he retired from medical practice at the age of sixty. He is sixty-five years old, reads fine print easily without glasses; his back is stooped and his walk is feeble, but his mind is sound and well stored with general information.

D., sixty years old, very tremulous, anæmic, has headaches, is sleepless and apprehensive, but mentally sound. Tonics greatly improved his condition.

[1] Manual of Insanity, 175.
[2] La Folie à Paris, 1890.

C., a female of sixty-four, bedridden, demented, abusive, suspicious; atheromatous; rapidly progressed in three months of insanity to death.

B., sixty-two, bedridden temporarily through senile feebleness, had a few transient unimportant delusions and sight hallucinations which disappeared as his strength increased. His mind was sound for a year thereafter, when he died.

H., aged sixty-nine. Recent events not remembered; was usually passive, effusively polite, at times voluble but coherent; liked to talk about his former life, bemoaned the past without occasion for his remorse. He was always eccentric and tyrannical; had periods of ill-temper and violent furies. He was noticed at first as growing very disagreeable and fault finding; and he finally assaulted his landlady for asking him a simple question. He roamed about seeking for employment when there was no necessity for so doing, his family being wealthy and willing to care for him. Once mistook the asylum corridor for the saloon of a Hudson river steamboat, of which he was at one time the captain. At another time he insisted upon it that he was dead, and cursed an attendant for arguing that dead men did not talk. Alternated religious rant, prayers, and oaths. Was observed to discriminate by being deferential to the asylum officials and offensive to those he regarded as of less consequence. He died in the second year of his asylum residence. His maternal uncle was insane.

W., aged seventy-three, an inventor whose insanity appeared to date from the advent of the telephone, over which he became greatly excited. Was a vegetarian and crotchety; grew unbearable, with unsystematized delusions of persecution and hallucinations of hearing. Improved enough to leave the asylum. His case appears to be one of phrenasthenia taking on the senile dementia aspect; his health was remarkably good for one of his years.

W., a female senile dement, was induced by real-estate dealers to deed her residence to them, in return for which they were about to send her to Ireland by steerage passage. The Hull House management, a charity organization, interfered in her behalf.

A., aged sixty-five, a merchant of ample means, heredity bad,

suddenly became demented and wandered about asking for a railroad laborer's job. Died a year after the insanity began.

G., a senile dement dying at the Alexian Brothers' Hospital, was prevailed on by an enemy of his only child, a daughter, to disinherit her and leave his property to nephews of whom he knew but little.

T., a sane female who died with paralysis agitans, aged sixty-five, left her property to her deceased husband's relatives. Her own relatives, from whom she had been estranged for forty years, contested the will on the ground of undue influence and insanity, but were defeated.

R., a senile dement with an imbecile son was unduly influenced to deed all of his property to a nephew and brother on a verbal agreement to care for the old man and his son. In a few days the helpless old patient was ejected from his home. After much litigation a compromise was effected by which a small amount was secured for the care of the dement.

S., editor of Chicago newspaper; paraplegic senile dement, induced to build an extravagant palace by a third wife to secure the bulk of his estate for herself. Spiritualists and sharpers in general preyed upon the old patient; in one instance charging him $500 for a tune played by "spirits" on the piano in the dark. His home was projected on so magnificent a scale that it was useless to others, and, while only half finished at his death, was taken down and the material sold for less than cost.

N., senile dement in a state hospital for insane, while having delusions of robbery, was being actually wronged out of real estate by a conservator. This case is mentioned to show that wrongs may be committed against the insane at the same time their delusions concerning such wrongs exist. The facts and delusions were independent, but chanced to coincide.

V., a senile dement about seventy years of age, with paralyzed lower extremities, lived for two years in a filthy room, refusing to change his clothing or to purchase and eat anything but the coarsest food. He limited his wife's household expenses to bare necessities while in receipt of an income of about $10,000 a year. He made proposals to a servant girl that frightened her away. His dislike to his wife was such that his brother easily induced the patient to deed his property so that the bulk would fall to

the brother. Pending a trial a compromise was arranged between the contestants.

E. The first occurrence to attract attention to anything out of the ordinary in the habits of an aged man who had theretofore led a respectable life was an attempted assault upon two or three female children less than seven years of age. A mob chased him for the purpose of hanging him, but reluctantly concluded that he was irresponsible, and his senile dementia was allowed to develop more fully in jail.

T. For four years an old man tottered daily up and down State street in Chicago, ogling the women and otherwise exhibiting both physical and mental decrepitude. Senile dementia does not always interfere with the ability to perambulate, or result in losing the way upon streets with which the patient is familiar.

D. A breach of promise case was threatened against a wealthy senile dement by a young widow, but the contemplated suit was abandoned as hopeless by the advice of the woman's attorney.

F. At the Alexian Brothers' Hospital, Chicago, an old gentleman was brought in and survived but a few weeks. He mainly occupied his time in anxious and futile attempts to sew on a single button.

James L. Morrison, of Richmond, Indiana, died August 12, 1893, aged 77, and by his last will, dated July 25, 1893, left an estate valued at $660,000 mainly to his only living child, a daughter; his wife and son having previously died. The children of a deceased son laid claim to a half interest in the estate under earlier wills made during the lifetime of the testator's wife and son, but which had been destroyed by the old gentleman at the time of making the final disposition of his property. In support of contestants' claim that Mr. Morrison was demented at the time of making his last will it was shown that in his later days he had grown very feeble; that for a year he had suffered from a constant pain in the back of his neck; that his pulse was intermittent and jerky; that he took tonics, suffered from attacks of dizziness and numbness, and complained of feeling cold; that his speech was slow and hesitating and his gait was feeble; that he was not able to hold the scissors in an attempt to cut up his former will; that he buttoned his clothes with difficulty; that his eyes were habitually dull and vacant, and he was easily startled and bewildered, and slept much

in the daytime; that he often refused his food, was assisted to dress, and the last month of his life was carried up and down stairs, was careless in his use of tobacco, which he would spit on the floor and his clothing; that he was irritable on one occasion, repeated a joke thrice on another occasion, and forgot that he had paid for some groceries (a small purchase); that he failed to recognize several persons but recollected them when reminded who they were; that once he harnessed the horse of a friend, instead of his own; that he wanted to make an injudicious contract; that he expressed a desire to go to a horse race the day his wife died; that he mistook persons on several occasions, made mistakes in entries and footings of accounts, and errors in spelling in letters, such as "bye-laws" instead of "by-laws;" that upon one occasion he had an hallucination of sight; he thought there was something on the carpet when there was not. The defense brought out the facts that Mr. Morrison was always reticent, not previously accustomed to stimulants, which he took in his last illness and which would account for some of his actions such as drowsiness, occasional garrulity, the joke repetition, etc.; that when he went to Florida for a while the rheumatic pain in his neck was relieved; that his eyesight and hearing were impaired, which would account for temporarily mistaking persons; that he had attended to his own accounts until the month of his death, with occasional assistance, and that the mistakes he had made were precisely such as he had been making many years previous; that he had always spelled by-laws "bye-laws;" that his character was unchanged, he was not irritable, was generally cleanly; that to within a few days of his death he had calculated and collected interest on loans correctly, and had properly indorsed and recorded the same; that letters he had written to members of his family and on business were sensible, well written, and such as he had written all his life, except a slight tremulousness in the handwriting, and his statements in the letters that it was a matter of physical difficulty for him to write for any length of time owing to the numbness of his fingers; that his conversation with others was rational; that within a few days of his death he signed checks and transacted business intelligently, and held a conversation with a friend concerning the uncertainty of life, in which no unsoundness of mind was apparent; that it was dark in the barn when he harnessed the

wrong horse; that he did not express a desire to go to the horse race, but remarked that he could not think of going under the circumstances. The trial lasted nearly four and a half months, and the jury were four days in bringing in a verdict. The judge charged heavily for the plaintiff and the jury found accordingly. A compromise between the parties terminated the contest.

W., aged sixty-two, while under my personal care for a few months enabled me to observe his senile dementia peculiarities constantly, many of which were quite comical. He was a dapper little gentleman, naturally pleasant in manners and speech, and extremely neat in his apparel. He would spend long hours in brushing his clothing and sometimes an entire night in bathing, but his chief occupation was letter writing. His spelling was always of the Josh Billings order, and added to the difficulty of reading what he had written. Quires of paper would be covered with unfinished attempts to write to one person, usually groundless complaints about the behavior of fellow patients. Every night he would rummage among his letters, until far into the morning, spilling ink everywhere, breaking toilet vessels, losing his pens, and waking others up to help him find them, oblivious of having discommoded anyone. He would misplace his spectacles or watch, and excitedly search the house for them. After several hours' looking for his watch on one occasion he finally found it in his vest pocket. He constantly appropriated the property of others, opened their letters, and was surprised at their contents, thinking the letters were written to him. He once emptied out the drawers of a sideboard looking for his overshoes. At another time he mistook the mewing of a cat for the cry of a baby and accused a young girl of having given birth to a child and that she was trying to secrete it. He persisted in his suspicions against all explanations. He appeared to have more illusions of sight than hallucinations, and even the latter could be accounted for as probably illusions caused by varying lights and shadows. At one time he fancied that a cow was on the roof of an adjacent house. He would use a hundred gallons of water for his bath and once drew a bath tub full to wet a postage stamp. Instead of turning off the hot-air register in his room when he was too warm he would tear open sealed windows and then complain of the coldness of his room. He forgot matters that would be of im-

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portance to him, and inconveniently remembered those things he should have forgotten. He failed to remember the names of those about him, and continuously mistook the rooms of others for his own. His self-confidence was unbounded, and when the use of the horse and buggy was refused him unless accompanied by a driver he would become enraged and object to being treated as a child, though he had nearly been killed by a train while crossing a railroad track awhile before. He resented being looked after, and prided himself upon being able to find his way about the suburb by himself, but he kept his address in his pocket, and when in doubt would ask directions of those he met. Every month he grew worse, his memory became more faulty, his complaints more unreasonable and frequent, his appetite increased, and he was longer at the table and would forget that he had just eaten. He confused night and day time, would sleep at midday and imagine that dinner was breakfast. Prowling and rummaging in his room till 4 or 5 o'clock in the morning, he would angrily demand to know when dinner would be ready. Occasionally stuporous attacks would keep him quiet for hours, when his face was flushed and he would complain of headaches and dizziness. His angry periods became more numerous and nothing could satisfy him, but he maintained his affection for his children, all of whom were sickly and one was feeble-minded. For this latter son he had kept his life insured, notwithstanding the unmistakable senile dementia which had rendered him more fit for an asylum than to be at large. His ability to care for his personal interests in general and to carry out his intentions with regard to property disposition was uninfluenced by his mental disease. His dementia rendered him liable at any time to lose discrimination in his own and in his children's affairs, and with the progress of the mind failure there would inevitably come a time when any departure from his well-known and previously expressed intentions with regard to his property might be regarded with suspicion as a change due to the advance of his disease; but it is to be observed that considerable mental decrepitude, as in this instance, is compatible with a disposing mind. The only means, however, of judging that his ability to properly distribute his property was maintained to this period of his insanity was the lack of any change of intention in that regard.

He died three years after his senile dementia began.

The Climacteric, or menopause, commonly known as the critical time, or turn, or change of life, occurs in the majority of women between the ages of forty and fifty. At first the menses are irregular in time and quantity, and discomfort is experienced to a lesser or greater degree. Some may pass the period with but slight ill feeling, while others suffer from headaches, dizziness, faintness, flushes of heat, emotional waves, sleeplessness, irritability, querulous impatience, and disturbance of memory and attention. In most cases there are feelings of lassitude, hebetude, indecision, and vague fears, as of some impending evil; often the dread of losing the mind is expressed.

Some authors have fancied that a corresponding period could be observed in men, at between fifty-five and sixty-five years of age, but the majority of alienists do not record any such statements. Popular tradition places the male climacteric at sixty-three when it is claimed that mortality is most frequent.

This period of disturbed mental and bodily health does not always coincide with the cessation of the menstrual flow. It may last from one to three years and occur before or after the change, usually preceding rather than accompanying it.

Among the more serious troubles of this period are occasional dropsical swellings, glandular tumors, cancerous growths, loss of memory, syncopal attacks, the appearance of epileptic symptoms, but more often hysterical phenomena, and in a few cases moral perversities and impulses such as dipsomania, kleptomania, pyromania, homicide, and suicide.

Climacteric insanity. There are enough peculiarities observable in many cases of insanity occurring in females at the change of life period to justify the title "climacteric insanity," though there are frequent instances of simple melancholia or mania originating in women at this time of life, in which the physical disturbances of the menopause can be regarded only as an exciting cause. Melancholia is by far the most common form of insanity precipitated by the organic revolution attending even normal menstrual cessation, and mania characterizes the remainder; the two forms being related in frequency in about the proportion of two thirds and one third of the total. This would include all melancholiacs and maniacs of this period as climacteric insane, which might not be strictly correct; for many cases of simple

melancholia or mania happen at this time, but in the majority of instances of the kind there are symptoms superadded to the insanity, which we do not find among the purer psychoses mentioned.

In addition to the physical and mental peculiarities accompanying the change of life in women, mentioned above, the impulses to drink liquor, to commit incendiarism, larceny, arson, homicide, or suicide, with other moral perversion, may become irresistible and leave no doubt of the insanity. Religious despondency, delusions concerning the moral well being, that the soul is lost, the "unpardonable sin" has been committed, that spiritualistic or mystical communications are held with the other world, are frequent; and hysteria may complicate either the mania or the melancholia.

Lewis[1] enumerates 27 per cent as having aural or visual hallucinations, and 73 per cent as having delusions, often of suspicion and persecution or that they have committed crimes. He notes that 60 per cent were apparently suicidal, but 44 per cent only really so. As Clouston remarked: "The very loss of courage and vigor of will operates against any effectual attempts at suicide, however much the wish may be there."

57 per cent of the women recovered from this disorder at the Royal Edinburgh Asylum, in from three months to two years. After the fiftieth year the chances for recovery are less.[2] Out-of-door life and tonics are most useful in treatment.

Undue influence has been exerted on some patients by taking advantage of their religious and spiritualistic delusions. A climacteric case in Chicago was systematically robbed by a spiritualistic promoter until adjudged insane and sent to an asylum.

Single women, according to Bucknill and Tuke,[3] are more liable to climacteric insanity than the married; and what Skae called "ovarian or old maids' insanity" may be considered as an erotic form of the climacteric mental derangements. Clouston says:[4] "The disease usually occurs in unprepossessing old maids, often

[1] Text Book of Mental Diseases, 372.
[2] Clouston, Mental Diseases, 394.
[3] Psychological Medicine, 366.
[4] Op. cit. 339.

of a religious life, who have been severely virtuous in thought, word and deed, and on whom nature, just before the climacteric, takes revenge for too severe a repression of all the manifestations of sex, by arousing a grotesque and baseless passion for some casual acquaintance of the other sex whom the victim believes to be deeply in love with her, dying to marry her, or aflame with sexual passion towards her, or who has actually ravished her after having given her chloroform. Usually her clergyman is the subject of this false belief. Out of ten such cases which I can recall, seven have had clergymen as their supposed wooers or seducers. In no case was there the very slightest possible grounds for the notion. In two cases the ladies have never even spoken to their supposed lovers. Certain gestures, or, as in one case, the contents of the agony columns of the newspapers, were sufficient proof to them of their beliefs. The annoyance to which unfortunate men are subjected in this way is often extreme. Lately a lady, now a patient of mine, went to a grocer's shop and ordered her supply of groceries in the name of a clerical acquaintance, saying she was his wife, telling the shopman to send the bill to him, and this was the culmination of a series of weekly letters to him of forty pages each. I have known grave accusations made to ecclesiastical authorities, and the beginnings of most injurious famas started by such insane women. Such patients were all of them between thirty-five and forty-three, and the reverse of sensuous in appearance. Some of them were most estimable ladies whom it was impossible not to pity, the whole thing was so contrary to the tenor of their lives, and so like a trick played on that higher being which they had always cultivated by a lower and more animal nature which they had sedulously repressed. None of them recovered from this sort of delusion, but in two of the cases, as they passed into the senile period, and after the climacteric, the notion became so theoretical that they almost ceased to allude to it."

The fact that widows may exhibit similar erotic symptoms shows the impropriety of calling the mental ailment "old maids' insanity," and its invariable appearance during the menopause or a little before entitles it to inclusion as climacteric insanity.

Nervous women, according to Regis,[1] are liable to lose their

[1] Practical Manual of Mental Medicine, 345.

reason, and recurrent insanity is liable to be excited at the period. Occasionally, instances are observable where paranoia or hysteria abates or disappears during this critical epoch, and insanity in general sometimes undergoes modification or even cure.

An Episcopal clergyman about thirty-five years of age became the object of adoration of a widow of fifty-five, who finally, at the conclusion of a church service, informed him that she had received a revelation that they were to be married. "Very well," said the clerical gentleman, "when I receive a similar revelation we will be married." The Celtic origin of the cleric explains the promptness of the rejoinder, which was enough to satisfy even an insane person.

In two cases in my experience, exasperating and unreasonable jealousy, with delusions and hallucinations of marital infidelity, such as occur in alcoholic insanity, was a symptom of climacteric insanity. In one case a sister had been similarly insane, and in the other the father had been a chronic alcoholic.

Puberty is a critical period in both sexes, considered as established with the beginning of the menses in females and seminal formation in males. In tropical climates pubescence may date from the tenth year, or earlier, and in colder countries be delayed to the twentieth year of life, with every intermediate range in temperate regions.

Just as senile dementia may appear during an uncertain period of years of senile involution, and climacteric insanity may precede or follow the catamenial cessation, so the insanity of puberty may begin during some years before or after the grosser physical changes of that time of life are apparent. This period of adolescence is usually placed between the twelfth or fourteenth and twenty-fifth year in man, and between the twelfth and twenty-first year in woman. Spitzka[1] mentions pubescent insanity at the ages of from fifteen to twenty-five, but a juvenile masturbatory insanity he also records as occurring as early as eleven.

Masturbatory insanity proper is observed in young boys between the eleventh and twenty-fifth year, but it is not very common. Primary dementia might include the mental degradation of this class, as the insanity is perpetuated by the bad habit and would disappear if the practice were stopped, but there are peculi-

[1] Manual of Insanity, 177, 379.

arities that indicate the origin of the insanity. Hence the term "masturbatory insanity" appropriately designates such cases. The symptoms are feeble-mindedness, moral perversion, suspiciousness, hypochondria, cowardice, indolence, a disposition to seek solitude. The habits become filthy and the language obscene, when they are interfered with. Destructive violence may also at times be exhibited. The popular error that self-abuse is a prolific cause of all forms of insanity arises from the prevalence of the habit among asylum patients, most often as an effect of insanity. Castration has sometimes but not always caused prompt recovery from this form of insanity by removing the cause, but it would be irrational to infer that castration would benefit other cases.

Hebephrenia, adolescent insanity, or the insanity of pubescence, is essentially a condition of arrested development allied to idiocy and imbecility, but occurring during the transition period of adolescence, when the boy is about to develop into the man. Like the hermaphrodite, which belongs to neither sex, so the hebephreniac is neither man nor boy, but remains something of both, often to very old age. Childish sportiveness, silly jocularity, boyish whining complaints, paroxysms of causeless laughter, trickiness, carelessness, egotism, mischievousness, a general exaggeration of boyish irresponsibility, with lack of the judgment that should begin to develop at this time, characterize the insanity of puberty in the male. Depression and suicidal attempts may begin the attack, and, as Spitzka[1] adds: "After the preliminary period the patients exhibit vague or blind propensities; they enter a business to leave it the next day, wander about aimlessly, or display a stupid malice toward their surroundings. While there is no incoherence the patients manifest a peculiar tendency to use verbose language. They will use long words, or such of an odd sound, or ride certain grammatical hobbies. Others will use slang or foreign expressions and quotations by preference. Gradually the condition changes, the intellect weakens progressively, and the patient, who is usually a confirmed masturbator, will pass into a terminal dementia marked by occasional furious outbreaks, determined in their occurrence by his unnatural excesses or by powerful external impressions.

"Everything connected with the mental state of these patients

[1] Manual of Insanity, 176.

appears shallow and even unreal. They have sham emotions, sham regrets, sham anger, and sham complaints. Even their hypocrisy, which is a common characteristic, is shallow. In the same breath in which they affect religious aspirations they will indulge in slangy vituperation, and then break out in causeless laughter. The expression of the countenance is an indication of the condition within; it expresses the leading character of lack of emotional depth, silliness, and insincerity."

Spitzka further mentions that "imperfectly developed cases, in which the disturbance is limited to a slightly strained emotional condition, with a tendency to writing silly and extravagant poetry, and which appear to be merely instances of a pathological intensification or undue prolongation of the ordinary pubescent state, present better prospects."

Kahlbaum[1] inclined to subdivide hebephrenia, but Krafft-Ebing[2] finding but 8 cases among 3,000, also quotes Schule[3] as encountering but 2 cases of pure hebephrenia among 600. In all of Krafft-Ebing's cases there was hereditary predisposition, original imbecility, and signs of degeneration; two were microcephalic; and he mentions a case of maniacal insanity in puberty, with hebephreniac symptoms. Spitzka found about 5 per cent of a pauper asylum population were hebephreniacs; and Clouston[4] claims that "there is no period of life when uncomplicated insanity occurs more frequently than during the completion of the physiological era of adolescence from twenty-one to twenty-five, and that adolescence does not appear to be so powerful an upsetter of mental equilibrium in women as in men." Clouston in the same article describes "the mild attacks of mental disturbance at this time of life which are not commonly reckoned as having any real connection with insanity, yet which are unquestionably of the same nature. One of the most puzzling and troublesome of such mild psychoses is that which assumes the form of exaggerated defiance of parental and school authority, with morbid self-will. Moral restraints and those inspired by authority are equally set at naught; nothing can be done with youths and

[1] Allgem. Zeitsch. f. Psychiatrie XLVI., 4, 1889.
[2] Lehrbuch, 162, 1888.
[3] Handbuch, 508, 1886.
[4] Tuke's Dict. of Psych. Med. 362.

maidens during such attacks. Nothing can be made of them; they are the despair and distress of parents, guardians, and school masters. They will not get up in the morning, nor will they do any work; or they even do daring acts of destruction, tear books, break furniture, threaten violence to themselves and others; or go and buy all sorts of useless articles without having money to pay for them; or they leave home without any reason; or take to purposeless deceit and lying, or do scandalous things in bravado; and yet all the time are not delirious or maniacal, and give the impression to those about them that they 'could help it' quite well. In fact they appear to be under the influence of a transitory vice or bad temper. When carefully studied they can usually be distinguished as really under the influence of a morbid brain condition."

The symptoms of hebephrenia among females is often of a less obtrusive nature except when mania occurs, which may also recur at each menstrual period. They are inclined to hypochondria, lassitude, "love-lorn" states, sometimes imagining themselves in love with strangers.

French alienists mention pyromania as a frequent obsession propensity or uncontrollable impulse among some pubescent girls; but in England and America this propensity appears to be infrequent. Hammond[1] mentions that: "A girl of sixteen who had never menstruated, but who had suffered no special bodily inconvenience from the circumstance beyond severe periodical headaches, was brought to me to be treated for what was regarded by her friends as insanity, and which was only manifested by an overpowering impulse to set fire to houses. She had made seven distinct attempts, all, however, on the dwellings of members of her own family, and hence, as none were successful, she had hitherto escaped exposure. When questioning her, and examining her thoroughly in other respects, I could discover no defects in her reasoning processes and no delusions. She was fully aware of her tendency, and regretted, so far at least as words and manner could go, her inability to control herself. The impulse only came over her once a month, in conjunction with her headache. Scarcely felt as more than an impression at first, it grew by degrees till it finally became so powerful that, as she expressed it, she felt

[1] Treatise on Insanity, 105.

as though she would go wild if she longer resisted. She compared the mental condition to the sensation (*anxietas tibiarum*) sometimes experienced in the legs when they have been kept long in one position, and which causes persons to feel as though, come what may, they must move them. Immediately on setting fire to a building the impulse disappeared, and did not return for a month. Latterly she had been so closely watched that she had not been able to indulge in her proclivity, which passed off in a few hours, though not without a considerable degree of excitement, almost maniacal, being produced." Hammond[1] further narrates homicidal impulses occurring in young girls, and quotes Delasiauve as having called attention to the abnormal mental condition in which women are sometimes thrown at the menstrual period. "He has noticed the exaggerated desires, the eccentric appetites, the inexplicable aversions, and especially the instinctive perversions which impel them to criminal acts."

They sometimes make false accusations against themselves and others, and in this desire for notoriety the hysterical condition of mind is approached, if, indeed, most of the perversions associated with menstrual phenomena are not mainly hysterical. Some are epileptoid. Infants have been murdered and entire families poisoned by obsessed pubescent girls; and any such occurrence should be investigated with reference to possible irresponsibility and the abundant literature on the subject. Separating the instances in previous sections in Ray[2] in which he seeks to show that pyromania may exist in adults as a distinct moral perversion without insanity, and in which he is in error, owing to the general misinformation of his times, and beginning with section 174, he describes therein a girl of twenty-two and another of seventeen who had pyromaniacal impulses, and in section 175 he describes disordered menstruation in two girls aged twenty-two and seventeen, associated with epilepsy and pyromaniacal impulses. Succeeding sections mention other cases, and were it not that the unconsciousness usually regarded as necessary to epilepsy in its many forms is often absent from the descriptions of other authors who discuss the disposition to incendiarism in pubescent cases, it might be said that epilepsy was at the root of the propensity in all such

[1] Ibid, 106.
[2] Med. Juris. of Insan. 174.

instances; but that the mind is deranged through changes wrought by the evolutionary process at this period is too well established to be doubted. Hence the assertion that pyromania is a symptom of insanity, and not an insanity *per se*, and that it may include the incendiary acts of some females at puberty, may be maintained.

Ray[1] holds with Hanke[2] and Marc[3] that "to prove the existence of pyromania produced by the sexual evolution, the age should correspond with that of puberty," etc., and suggests other tests which are not without value at this day.

Baker[4] who says that pyromania does not exist as an insanity by itself, states: "In conclusion, we find that pyromania occurs amongst certain children. In such cases it does not appear to be the result of a specific instinctive monomania, but to be due to a primary moral defect of hereditary origin. It is a condition frequently observed at the onset of or after the development of puberty, when it is associated with the nervous disorders arising from the changes in the reproductive system at that period."

The stigmata of degeneracy should be sought for in pubescent criminal cases, as the V-shaped mouth-roof has been observed in over half of the hebephreniacs.

[1] Ibid. 178.
[2] Abhandl. Gerichtl. Medic. III., 1824.
[3] Annals D'Hygiene, X., 357, 473.
[4] Tukes' Psych. Dict., 1060.

CHAPTER XX.

VESANIAS.

Vesaniæ is a term that has been in occasional use by alienists since Sauvages's *Nosologia Methodica* of 1763, to group insanities of the essentially curable kind. Its convenience as a classification of curable insanity as distinguished from the incurable sort arising from destructive changes in the brain, justifies the perpetuation of the word.

The French designate as *vésaniques*, according to Ball, individuals who present a perfectly characteristic abnormal mental condition, but whose insanity is not connected with obvious material lesions. They have nearly the same chances of life as that of other men. In the vesanias, heredity is not prominent. They are usually acute disorders with a greater tendency to recovery than they have to become chronic. Regis calls them "functional alienations," to indicate their freedom from the demonstrable organic changes upon which other insanities may be based. But, as is the case with any and every attempt at classification, nothing beyond approximate exactness can be claimed for this separation of mental diseases into groups.

Delirium in a limited sense signifies the temporary mental disturbance accompanying some bodily diseases, generally fevers. Lightheadedness, incoherent speech and ideas, flightiness, restlessness with hallucinations, illusions, and delusions, purposeless actions, and inability to fix the attention,—characterize delirium.

When causes such as meningitis, brain tumor, and blood poisoning, persist, the delirium may be more or less continuous, and constitute a chronic insanity with delirium, not properly a vesania. Delirium may be active or passive, varying from a frenzied, maniacal state to the low muttering delirium of the last stages of typhoid fever. Some poisons, such as belladonna, hyoscyamus, stramonium, cannabis Indica, etc., in sufficient doses cause delirium; but permanent insanity could not be induced by the continued use of poisonous doses of such active agents because death would follow a few administrations. Occasionally delirious at-

tacks are easily provoked by slight causes in some persons. Young children, particularly, such as have had head injuries or scarlatina, may be subject to night-terrors, the *pavor nocturnus*, or children's nightmare.

Isaac Ray's chapters[1] on Febrile Delirium are well worth reproducing as material that has a medico-legal usefulness out of much of his writing which the advance of knowledge renders unavailable. He says:

"Cerebral affection of some kind or other we have considered as essential to the existence of insanity,—as constituting in fact the whole disease; but there is another form of mental derangement of very common occurrence, in which the cerebral affection is only an accidental symptom of severe disease in the brain or some other organ. The functions of the brain are disturbed in each, but they differ so widely in their causes, progress, and termination, that the propriety of distinguishing them from each other for medico-legal, as well as therapeutical purposes, is universally recognized. Few diseases terminate in death without presenting at some period or other of their progress, but more particularly towards their close, more or less disturbance of the mental faculties; organic diseases of the brain, especially acute inflammation of its membranes and its periphery, are generally accompanied with delirium; and it is sometimes a symptom of acute disease in other organs, in consequence of the cerebral irritation which they sympathetically produce. It is seldom entirely absent in fevers of any severity, and is readily determined by inflammations of the mucous and serous membranes, particularly of the alimentary canal. In inflammation of the lungs, liver, spleen, and kidneys, it appears only towards the last period of the disease, when it is approaching a fatal termination. Surgical operations, too, that prove fatal, are ordinarily attended at last with delirium. In chronic diseases, such as cancer, dropsy, consumption, the mind is seldom impaired, except that occasionally, during the final struggle, it wanders over the mingled and broken images of the past. Delirium is also produced by intoxicating agents, when it simulates mania more perfectly than when it arises from other causes; but this form of the affection will be discussed in a different place.

[1] Medical Jurisprudence of Insanity, 304 *et seq.*

"Delirium sometimes occurs suddenly, but generally comes on gradually, and is preceded by premonitory symptoms, such as pain or throbbing in the head, heat of the scalp, and flushing of the cheeks. Its first appearance is manifested by a propensity of the patient to talk during sleep, and a momentary forgetfulness of his situation and of things about him, on waking from it. After being fully aroused, however, and his senses collected, the mind is comparatively clear and tranquil, till the next slumber, when the same scene is repeated. Gradually, the mental disorder becomes intense, and the intervals between its returns of shorter duration, until they are scarcely, or not at all, perceptible. The patient lies on his back, his eyes, if open, presenting a dull and listless look, and is almost constantly talking to himself in a low, muttering tone. Regardless of persons or things around him, and scarcely capable of recognizing them when aroused by his attendants, his mind retires within itself to dwell upon the scenes and events of the past, which glide before it in wild and disorderly array, while the tongue feebly records the varying impressions, in the form of disjointed, incoherent discourse, or of senseless rhapsody. In the delirium which occurs towards the end of chronic diseases, the discourse is often more coherent and continuous, though the mind is no less absorbed in its own reveries. As the disorder advances, the voice becomes more indistinct, the fingers are constantly picking at the bedclothes, the evacuations are passed insensibly, and the patient is incapable of being aroused to any farther effort of attention. In some cases, delirium is attended with a greater degree of nervous and vascular excitement which more or less modifies the above-mentioned symptoms. The eyes are open, dry, and blood-shot, intently gazing into vacancy, as if fixed on some object which is really present to the mind of the patient; the skin is hotter and drier; and he is more restless and intractable. He talks more loudly, occasionally breaking out into cries and vociferations, and tosses about in bed, frequently endeavoring to get up, though without any particular object in view.

"While delirium thus shuts out all ideas and images connected with the present, it sometimes revives the impressions of the past, which had seemed long before to have been consigned to utter oblivion, in a manner unknown in a state of health. A case once

occurred in St. Thomas's Hospital, of a patient who, when he began to rally, after a considerable injury of the head, spoke a language that nobody could understand, but which was, at last, ascertained to be Welsh. It appeared that he was a Welshman, and had been from his native country about thirty years, during which period he had entirely forgotten his native tongue and acquired the English language. But when he recovered from the accident he had forgotten the language he had been so long and recently in the habit of speaking, and acquired that which he had originally learned and lost.[1] Dr. Rush mentions, among many other similar instances, that the old Swedes of Philadelphia, when on their deathbeds, would always pray in their native tongue, though they had not spoken it for fifty or sixty years, and had probably forgotten it before they were sick.[2]

"When delirium, or, more properly speaking, the disease on which it depends, proves fatal, it usually passes into coma. Occasionally, however, it disappears some days or hours before death, and leaves the mind in possession of its natural soundness. Though enfeebled by disease, and therefore incapable of much exertion of his faculties, the patient is rational and intelligent, recognizes perfectly well his relations to others, and on familiar subjects can arrange his ideas without dictation or guidance.

"So closely does delirium resemble mania to the casual observer, and so important is it that they should be distinguished from each other, that it may be well to indicate some of the most common and prominent features of each. In mania the patient recognizes persons and things, and is perfectly conscious of and remembers what is passing around him. In delirium he can seldom distinguish one person or thing from another, and, as if fully occupied with the images that crowd upon his memory, gives no attention to those that are presented from without. In delirium there is an entire abolition of the reasoning power; there is no attempt at reasoning at all; the ideas are all and equally insane; no single train of thought escapes the morbid influence, nor does a single operation of the mind reveal a glimpse of its natural vigor and acuteness. In mania, however false and absurd the ideas may be, we are never at a loss to discover patches of coherence,

[1] Tupper's Inquiry into Gall's System, 35.
[2] On Diseases of the Mind, 282.

and some semblance of logical sequence in the discourse. The patient still reasons, though he reasons incorrectly. In mania, the muscular power is not perceptibly diminished, and the individual moves about with his ordinary ability. Delirium is invariably attended with great muscular debility; the patient is confined to his bed, and is capable of only a momentary effort of exertion. In mania, sensation is not necessarily impaired, and in most instances the maniac sees, hears, and feels with all his natural acuteness. In delirium, sensation is greatly impaired, and this avenue to the understanding seems to be entirely closed. In mania, many of the bodily functions are undisturbed, and the appearance of the patient might not, at first sight, convey the impression of disease. In delirium every function suffers, and the whole aspect of the patient is indicative of disease. Mania exists alone and independent of any other disorder, while delirium is only an unessential symptom of some other disease. Being a symptom only, the latter maintains certain relations with the disease on which it depends; it is relieved when that is relieved, and is aggravated when that increases in severity. Mania, though it undoubtedly tends to shorten life, is not immediately dangerous, whereas the disease on which delirium depends speedily terminates in death or restoration to health. Mania seldom occurs till after the age of puberty; delirium attacks all periods alike, from early childhood to extreme old age. It must be borne in mind, however, that the above distinctive features are not always present. A form of mania is occasionally seen in which the mental aberrations and some of the physical symptoms are remarkably like those of delirium.

"Testamentary dispositions made during the intervals of febrile delirium are often contested on the ground of incapacity, especially where there is any suspicion, real or pretended, of improper influence on the testator's mind. These cases are sometimes very embarrassing, and it is impossible to come to a conclusion upon the direct evidence respecting the state of mind; nothing more can be attained than an approximation to correctness, by a careful investigation of the attending circumstances. When the delirium accompanies only the daily exacerbations of the fever, and disappears with them, there can be no doubt of the mind's being in a suitable condition, during the intervals, for devising

property, but not for transacting other business of importance. The existence of delirium at any period of a disease will be sufficient to throw suspicion on any contracts entered into during such disease; and unless it can be shown that the delirium was but an occasional symptom and of short duration when it occurred, and that the mind of the patient at other times was perfectly calm and rational, their validity is liable to be destroyed. When these two conditions are reversed, that of delirium being the habitual, and the lucid intervals the occasional state, the mind *may* have sufficient capacity to make a will; but, certainly, no other civil act which it might perform ought to be held valid, for the same reason that the acts of imbeciles are avoided. Georget, however, does not hesitate to express his belief that under these circumstances the reason is not so restored that the patient can be declared capable even of making a will; and we readily admit that it is often questionable whether the mind is sufficiently steady and collected to comprehend the relations of property, or appreciate the claims of kindred and friends. A case related by Dr. Woodward, the superintendent of the Massachusetts Lunatic Asylum, while giving his evidence in court on one occasion, strongly confirms the correctness of Georget's views. A legal gentleman, in the course of an acute pneumonic affection, began to have slight delirium on waking in the morning, but it was observed at no other time. About this time he remarked to his physicians that if they considered him in danger he wished to know it, as he was desirous of altering his will, which he had previously made. Though not considering him to be in much danger, they approved of the plan, and the alteration was made. A few months after his recovery, he accidentally met with the will among his papers, but had no recollection of having made it, and was much surprised and dissatisfied with its dispositions. Still, we would not make the disqualification universal, for cases not infrequently happen in which, after days of constant delirium, reason for a while resumes her dominion and the patient converses with his accustomed fluency and wisdom, describing his feelings, giving directions to his family, and alluding to the past with a clearness and accuracy that leaves no doubt on the minds of those around him, of his perfect sanity. A safer practice probably would be, to be governed in our decision of this point by the circumstances that attend the

making of the will, the previous intentions of the testator, and the nature of his disease. It must be recollected that the question is, not whether the mind possesses its ordinary soundness and vigor, for we know it is always enfeebled, but whether it retains what may be called a 'testamentary capacity.'

"The law requires that in this affection, as in mania, the occurrence of lucid intervals should be proved beyond a reasonable doubt, but as delirium is merely an adventitious symptom, and not, like mania, the habitual state of the patient, it will be satisfied with much less proof in the former than in the latter affection. Sir John Nicholl has very justly observed that, 'in cases of permanent, proper insanity, the proof of a lucid interval is a matter of extreme difficulty, and for this among other reasons, namely, that the patient so affected is not unfrequently *rational* to all *outward* appearance without any real abatement of his malady; so that in truth and substance he is just as insane in his apparently rational as he is in his visible raving fits. But the *apparently* rational intervals of persons merely delirious for the most part are *really* such. Delirium is a fluctuating state of mind, created by temporary excitement; in the absence of which, to be ascertained by the *appearance* of the patient, the patient is, most commonly, *really* sane. Hence, as also, indeed, from their greater presumed frequency in most instances in cases of delirium, the probabilities, *a priori*, in favor of a lucid interval, are infinitely stronger in a case of delirium than in one of permanent proper insanity; and the difficulty of proving a lucid interval is less, in the same exact proportion, in the former than it is in the latter case, and has always been so held by this court.'"[1]

"In the case from which the above passage is taken, the testatrix, a widow lady, died of some acute disease after an illness of about ten days, during the two or three last of which she was more or less delirious. Her will was made on the evening of the day preceding her death, and its validity was opposed on the

[1] Judgment in Brogden v. Brown, 2 Add. Eccl. Rep. 441. If the reader is desirous of extending his knowledge of this subject, he will be well rewarded for a careful perusal of this and the following cases, in which the luminous expositions of Sir John Nicholl cannot fail to please and convince: Evans v. Knight, 1 Add. Eccl. Rep. 229; Lemann v. Bonsall, 1 Add. Eccl. Rep. 389.

ground that she did not possess a testamentary capacity at the time of its execution. The evidence of the two consulting physicians who visited her about 4 o'clock, which was but a few hours prior to the execution of the will, was decidedly unfavorable to her testamentary capacity. One considered it 'doubtful whether she was capable of making a will or not; his opinion rather was that she was not.' He saw her once or twice afterwards, when she was 'quite delirious and clearly incapable.' The other physicians who saw her at 4 o'clock conceived her 'quite incapable of any complicated act; undoubtedly of anything that required fixed attention or any exercise of mental faculty.' The attending physician, however, attributed the delirium to the paroxysms of severe pain suffered by the deceased, it being scarcely perceptible when these were absent, and believed that in the intervals she had perfect capacity. It appeared, too, that the will, which had been prepared from instructions just before received from her, was read over to the deceased, placed before her while she was sitting up in bed, and subscribed by her in the usual form with a dash below. The validity of the will was established.

"In another case, the testator, who died on Friday, the 24th of April, of an attack of pneumonia, during the latter stages of which he had considerable delirium, made his testamentary dispositions on the 21st. One of the physicians deposed that when he saw the deceased on the 21st 'he was not in a state of sound mind, memory, and understanding, or capable of doing any act requiring the exercise of thought, judgment, and reflection.' Another, who saw him for the first and only time on the 23d, thought it was extremely 'improbable that the deceased should have been free from wandering and mental affection on a day so shortly before he saw him as the 21st.' It appeared, on the other hand, that he gave instructions for a will without any suggestions whatever from the solicitor who reduced them to writing, and that after they were read to him he approved and subscribed them. It was also deposed by other witnesses that when the solicitor came, and while giving him instructions, he appeared rational and conducted himself with propriety. The court pronounced in favor of the deceased's testamentary capacity.[1]

[1] Evans v. Knight, 1 Add. Eccl. Rep. 229.

"In cases where the validity of testamentary dispositions is impugned on the ground of mental incapacity produced by delirium, or indeed by any other disorder, it is the practice of the English ecclesiastical courts not to confine their attention exclusively to the evidence directly relating to the mental condition of the testator, but to consider all the circumstances connected with the testamentary act; for the object is not so much to settle the question of soundness and unsoundness in general, as it is in reference to that particular act. The principle is—and it is one that is well grounded in the common experience of men—that a person may be capable of testamentary acts while technically and really unsound and incapable of doing other acts requiring much reflection and deliberation. This principle is particularly applicable in cases of delirium, where the transitions from a state of senseless raving to that in which the mind is calm, perfectly rational, and conscious of its condition, are very rapid, and where in the lucid interval the mind, though weak, is clear and unclouded by any of those peculiar views or notions which often characterize the lucid intervals in mania. Accordingly, the testamentary capacity is to be determined, in a great measure, by the nature of the act itself. If it be agreeable to instructions or declarations previously expressed when unquestionably sound in mind; if it be consonant to the general tenor of his affections; if it be consistent and coherent, one part with another; and if it have been obtained by the exercise of no improper influence,—it will be established, even though the medical evidence may throw strong doubts on the capacity of the testator. On the contrary, when these conditions are absent, or are replaced by others of an opposite description, it will as generally be annulled, however plain and positive may be the evidence in favor of his capacity.[1]

"In some affections of the head, and they may be primary or sympathetic, the patient lies in a comatose state from which he may be aroused, when he will recognize persons and answer

[1] In illustration of these remarks the reader is referred to Williams v. Goude, 1 Hagg. Eccl. Rep. 577; King v. Farley, 1 Hagg. Eccl. Rep. 502; Waters v. Howlett, 3 Hagg. Eccl. Rep. 790; Bird v. Bird, 2 Hagg. Eccl. Rep. 142; Martin v. Wotten, 1 Lee, Eccl. Rep. 130; Bittleston v. Clark, 2 Lee, Eccl. Rep. 229; Marsh v. Tyrrell, 2 Hagg. Eccl. Rep. 84; Hoby v. Hoby, 1 Hagg. Eccl. Rep. 146.

questions correctly respecting his feelings, but drop asleep again as soon as they cease to excite him. That the mind is much embarrassed certainly cannot be doubted; and it is well known that when the patient recovers he has ordinarily very little idea of what passed at those times; indeed, he is generally unconscious of everything he either said or did. It would be a bold assertion to say that the mind, under these circumstances, is legally capable of making testamentary dispositions, and they ought therefore to receive no favor from courts. In cases of injury to the head, it is not uncommon for the patient (after rallying from its immediate effects) to answer questions rationally, to appear collected and intelligent, in short, to have fully recovered his senses, though he may subsequently declare that he is utterly unconscious of what were his acts, thoughts, or feelings at that time. Few, even among medical men, who observe a person under such circumstances, would have any hesitation in expressing their belief in his testamentary capacity, though the event would show that they had labored under a serious error."

Mania, an insanity in which there is general exaltation of the mental, sensory, and motor functions, would appear to be of easy diagnosis; but the excitement of other forms of insanity is constantly mistaken for that of simple mania. In paretic dementia there may be a maniacal outbreak, but the comparison between that hopeless derangement and mania may be expressed in popular language as about that of "consumption" to an ordinary "cold in the head." In hysterical insanity there may be offensive excitement; and epileptic insanity affords some of the most formidable furies; agitated melancholia at times superficially resembles mania; and in these and many other disturbed mental states the activity is often mistaken as a symptom of mania. There would be an end to scientific psychiatry if every depressed lunatic were classed as a melancholiac and every excited one as a maniac.

The beginning of mania is usually very gradual. Weeks, months, and sometimes two years, of "bad health," may precede an outbreak; and the bodily complaints that occasionally lead up to an attack of mania do not differ from the multitude of debilitated states that often terminate favorably; so that when the mental explosion comes it is usually unexpected. Commonly the

prodromal period covers two or three months of some sleeplessness, "indigestion," constipation, loss of appetite, discomfort in the head, loss of business ability, and general depression and hypochondria. Just before the outbreak, however, there is a change for the better in all these respects, and for days or weeks the patient congratulates himself upon having recovered from "nervous prostration," but this reaction goes too far, and recognizable mania appears. If the onset seems to be sudden it is, as a rule, because the early stages are not noticed or are shorter than usual. The maniacal excesses of phrenasthenia or of periodical insanity may be unheralded, but these are not included in the mania of the simple vesanic type. Other forms of insanity may also be ushered in by a similar depression; therefore its existence is no guide to what may follow.

In hospitals for the insane it is the general impression that the greater the violence the sooner the case is likely to recover, and that very mild cases may last a year or more. With Blandford[1] I would restrict this prognosis of short duration to noisy, turbulent violence without (or with very changeable) delusions or hallucinations, and to the young and strong, who react sooner and more favorably to disease in general. There are many cases of simple mania which never reach an asylum owing to the mildness or brevity of the disorder. The period of insanity is short where there is youth and recuperative power, and in the absence of bad heredity or other grave predisposition, whether the attack be mild or violent. Prolonged or intensely exciting causes, as privations, protracted grief, etc., may so undermine the health as to delay or prevent recovery. The average duration of a case of mania Spitzka[2] places at five months, made up of about six weeks of an initial depressed stage, three months of mania, and about two weeks of convalescence. Cases may be as short as a week, or they may recover in the second year or after, but such are exceptional; and (according to what preceded the outbreak) the bodily health may be shattered for years after full mental recovery.

Emaciation and an aged appearance, caused by a dry shriveled skin, and harshness or coarseness and bristling of the hair usually mark the attack. The appetite is capricious; meals may be neg-

[1] Tuke's Psych. Dict., 1008.
[2] Manual of Insanity, 138.

lected or eaten voraciously. The tongue is foul or red, sometimes with glazed patches. The menses are absent or disordered, at least scanty and irregular, and the menstrual period is attended with exacerbations of the mental trouble in most instances. The bowels become regular usually, or more active than before. The pulse, at first full and bounding, later becomes thready and even slow. The temperature is normal or lower than in health. Sleeplessness is always a marked feature, and most astonishing periods may elapse without sleep, while the raving may continue at the same time. Patients have been known to have no sleep for a month, while for three months it was uncertain whether they had slept or not. In acute cases the return of sleep is a good indication, but it also accompanies the chronic condition.

In every case of mania the senses and perceptions are more acute; the mind is alert and appears more vigorous than usual; the memory is better; there is a keener color sense; odors, sights, and sounds are more readily perceived; ideas crowd one another so rapidly that the speech is not quick enough to express them, and broken sentences may lead to a suspicion of incoherent thought when it does not exist.

Ordinarily the maniac is harmless, or more likely to hurt himself in his reckless activity than to injure another. His restlessness impels him to incessant activity; facial muscles, hands, feet, and body are in constant motion. He grimaces, gesticulates, runs here and there, chatters, declaims, shouts, screams, scolds, laughs, or claps his hands in glee, pounds his feet on the floor, and, if restrained, tugs and wrenches at his fastenings or tries to tear them off with his teeth. Before his confinement he may have generously squandered wealth among acquaintances or strangers, feasted his friends, or indulged in drinking or sexual excesses to such an extent that he was supposed to be simply drunk. The ordinary incentives to civility and decency are removed, and all that is animal comes to the front. The sexual function is exaggerated, and the females of an asylum, more often than the males, in mania, are apt to be vulgar, blasphemous, obscene, and indecently suggestive in words and manner, irrespective of their previous training or surroundings,—not invariably so, but in about half the cases.

Illusions are frequent, such as mistaking strangers for friends

or relatives. Hallucinations of all the senses may occur; "the patients hear military music, dogs barking, machinery, or obscene calls; they see marching regiments, processions, and priapic or heavenly visions; they smell noisome or choking gases, and taste poisonous or fœtid food. But in so far as these hallucinations are intrinsically unpleasant they present this contrast with the similar hallucinations found in depressive forms of insanity, that the patient does not build up depressive but expansive delusions on them."[1]

Violence may proceed to destructive acts, such as tearing the clothing or smashing furniture or windows; but it is seldom that the maniac attacks anyone, though he may do so without motive so far as can be made out, unless some delusion affords the motive. Whatever delusion may exist is unsystematized and not apt to be fixed for many days at a time. Sometimes one thing may be harped upon for a week, to be gradually forgotten and replaced by some other fancy.

There may be mania without delusions, hallucinations, or illusions, and it may be exhibited in mere excitement, usually of a pleasurable or gay kind. Mendel under the term "hypomania" describes a condition without fury or hallucinations, but with reckless extravagance, egotism, and inclination to roystering, immorality, and prodigality, in which the patient is impatient of opposition and disposed to be on the move or to travel about incessantly.

Many of the maniacs observe the proprieties fairly well, while the more violent are filthy, "wet and dirty," and occasionally bedaub their cells and themselves with fæces.

Rhyming is a remarkably frequent maniacal peculiarity. One word will suggest another of similar sound, and if the patient has not sufficient education to be able to construct jingle of some kind he will for hours shout foolish rhymes such as "snow, hoe, bow, row, dough;" or an association of ideas may be started and words repeated as suggested; thus, "snow, rain, hail, storm, thunder, lightning," and so on. Long rigmaroles of sermons, lectures, political speeches, prayers, etc., may be recited, or songs may be sung very creditably. Sometimes in asylums one maniac will

[1] Spitzka, op. cit., 134.

learn songs from another, and the two will sing together vociferously and for long hours; but digressions are apt to occur, as in mania the attention is too easily diverted to enable one occupation to be followed uninterruptedly. Occasionally one may do a prodigious amount of writing, and the letters of maniacs may be quite coherently written. Mischief can sometimes be prevented by taking the maniac's attention away from whatever harm he may be about. It is not often, however, that in *simple* mania aggressiveness persists against persons long enough for them to cause personal injury. When shooting, stabbing, or other insane violence of the kind occurs, it is most often during the maniacal stages of some other form of insanity, such as alcoholic or traumatic, or the mania is at least complicated with alcoholism, or is the episodical fury of a degenerate. The maniac, pure and simple, is not *always* thus inoffensive but he is usually so, as in general his gaiety does not often turn to anger; but his happiness is very unstable, and may turn to hate and fury at any time, to be vented usually on inanimate rather than animate things.

The hyperæsthesia of all the senses includes that of the touch sense, and the uncomfortable sensation of the skin usually induces the maniac to tear off his clothing, though there may be great insensibility to heat or to cold.

The hallucinations may be distressing, and for some time after recovery it may be difficult for the maniac to determine the real from the unreal of his insanity, though for the most part all his experiences are well remembered, except those of his *furor maniacorum*. Erotic excitement is common in mania, owing to the fact that the sexual propensities are intensified, in keeping with the general emotional exaltation. Religious or ecstatic emotional exaggeration is associated with eroticism, which in the male is styled "satyriasis" and in the female "nymphomania." Masturbation may be committed excessively, and at times openly, but this has not the bad prognostic importance that it has in other insanities.

Salivation may occur in some maniacs, to disappear during their improved periods. They are quite liable to septic troubles, particularly after the bruises and other injuries they constantly invite. Suppurations, carbuncles, erysipelas and "the insane ear" afflict these unfortunates; but occasionally boils or a fever may terminate or improve the mania as by a crisis.

Severe burns or other injuries have been sustained by maniacs without their commenting upon it. Some cases are not only analgesic, or dead to pain sense, but actually derive enjoyment from inflicting injury upon themselves.

The prognosis of mania is very favorable. More than 90 per cent of the younger with good heredity fully recover, never to become insane again. From 80 per cent to 60 per cent of all cases are estimated by various authors as recovering. Lewis[1] gives for one set of 134 cases of simple mania at the West Riding Asylum, England, 61 per cent of recoveries, 11.9 per cent of deaths; 11 per cent were relieved; and 16 per cent became chronic; and among 201 "acute" cases of mania 65.5 per cent recovered, 13.4 per cent died, 11 per cent were relieved, and 10 per cent became chronic. Partial recoveries occasionally leave the victims enfeebled in judgment or memory, or unduly excitable. Deaths occur through pneumonia, or past alcoholic excesses or through maniacal exhaustion.

The unnatural strength at times possessed by maniacs, and their surprising waste of energy through long periods without food, rest or sleep, do not betoken an increase of vitality. When the detent slips from the main spring of a clock the works run down energetically, but no more force is expended than had been stored up by the winding. The bodily emaciation, the danger of death from exhaustion, and, if recovery occur, the prolonged convalesence show that the mania was an expression of weakness rather than of extra strength. Supporting treatment is necessary rather than depressants. The physical exhaustion may pass to a stage when it is no longer realized as such, as the freezing man may feel warm, and the one who is starving may lose his hunger.

While the majority of mania cases are only noisy and troublesome, maniacs sometimes make homicidal or suicidal attempts, and some are more dangerous in this respect than others. Some rave for long periods; others exhibit fury at intervals, and most patients have quiet periods; and, as convalesence begins, lucid intervals of increasing length appear with an inclination to sleep better and longer at a time.

[1] Text Book of Mental Disease, 189.

Considerable difference may be found in the manifestations of mania. Clouston reports a case maniacal only in his chatter. One at the Chicago County asylum whistled incessantly. Others move about restlessly, and this impulse to motion Clouston gratified by occasionally allowing a patient to walk off his excitement, between two attendants, along a country road. A female at a state asylum was happier and quieter when allowed to do hard laundry work, and her propensity to verbigeration could be calmed by giving her sufficient gum to chew. Sometimes there is reaction to slight causes, either for the better or the worse. A meal may invariably bring on an attack of bad behavior in one case, and end one in another. Often a medicine beneficial at one time does no good when again administered. A suggestion may arouse fury or have a happy influence. What would excite an attack of mania in one person would not in another. Melancholia or some other psychosis, might be induced by the same influence. Predisposition appears to be everything in most cases of insanity, and the exciting cause is like the flame that ignites the powder. Overwork, worry, exhausting discharges, such as menorrhagia, have caused mania or melancholia. Exophthalmic goitre is occasionally associated with mania. A slight wound in the hand brought on an attack in a predisposed person. Excessive heat may induce an attack, but traumatic insanity is also liable to be induced by the same cause; the difference in effect depending upon the absence or presence of consequential organic brain changes. Alcoholism and multitudes of other debilitating or degrading matters are operative, but a pre-existing inclination appears to determine what form an insanity will assume.

Mania is more frequent between the twenty-fifth and thirty-fifth year. Spitzka[1] estimates that mania furnishes about 11 per cent of the asylum insane, and quotes Marce's enumeration of 300 males and 479 females in a total of 5,481 admissions to the Bicêtre. Garnier,[2] among 4,831 males and 3,308 females insane, found 210 male, and 321 female, maniacs.

Hypochondria is Niemeyer's[3] designation for the state of men-

[1] Ibid.
[2] La Folie à Paris, 1890.
[3] Text Book of Practical Medicine, I., 494.

tal depression accompanying some cases of stomach trouble, such as chronic gastric catarrh, gastritis, or what is commonly called "dyspepsia" or "indigestion." The general discouragement, undervaluation of mental power, business despair, etc., attending this stomach disorder, may disappear on the cure of the disease. Serious affection of nutrition, and even death from marasmus or dropsy, may ensue from gastritis; and it is remarkable that while digestive derangements, of this and other kinds, cause a certain amount of mental uneasiness in all such patients, the physical distress is commonly most prominent; but in some patients insanity is a complication, and the gastric trouble may be an exciting cause of melancholia in one predisposed to insanity. It may be so severe, apparently, as to induce insanity secondarily in one not otherwise inclined to be insane. It may be caused by the same influences that originated the melancholia, or be a symptom of the general functional depression. Cases of genuine melancholia have often been mistaken for "dyspepsia," or the latter has been overlooked, according to the prominence of symptoms.

Hypochondriasis may exist alone or in connection with several forms of insanity. Hereditary taint is frequent among hypochondriacs. Migraine, hysteria, epilepsy, phthisis, or mental ailments, are common in the direct or collateral lines.

The reasoning faculties may be unimpaired apart from certain uncomfortable sensations. A feeling of illness and apprehension may be exaggerated into positive delusion; and when the mentality is unaffected the hypochondriac may be considered sane; but, if concomitantly the mental strength is not great, the hypochondriasis may lead to or become a prominent symptom of depressed forms of insanity.

Hypochondriasis usually develops gradually, with intermissions; the bodily functions and organs are studied anxiously, and insignificant ailments are considered important. One day the hypochondriac will fancy he has an ulcer of the stomach; the next he will dread apoplexy, heart disease, or consumption. He studies popular medical literature and quack advertisements to find new diseases with which he imagines he is afflicted, and, while consulting many medical advisers, soon loses confidence in all, and does not remain under the care of any physician very long at a time; often, however, returning to the same doctor on his rounds.

after months or years. Argument does him no good. Hypochondriacs are apt to overdose themselves with medicines, and thus complicate their imaginary with actual sickness. Females are more apt to be hysterical; and hypochondriasis has been regarded as a hysteria of males. The course is often chronic, though many recover. There is danger that such patients will become addicted to alcoholics or opium because of the temporary relief they afford. The disposition changes and the sufferer exhibits selfishness, egotism, loss of self-control, and weariness of life, and suicide may result.

Hypochondriasis may be an exaggeration of real symptoms, or the insane interpretation of purely functional disorders. Some may complain mostly of head distress; others are concerned with the condition of their sexual organs; syphilis and spermatorrhœa are common occasions of their fears. Suicidal dispositions are noted in patients of the kind who imagine that they are impotent; and dwelling upon the function of reproduction is sufficient to interfere with its performance. Masturbation is usually assigned as the cause of such sexual defects. The throat, stomach, intestines, liver, or rectum engage the attention of the majority, and the digestive processes appear to be felt by hypochondriacs at times, and some are invariably worse after eating. Circulatory disturbances may be conspicuous in some cases; such as flushings, rapid, or irregular heart action, etc., and it is well to remember that underlying all these so-called imaginary, there are some real, functional or organic, derangements, however indefinite or undeterminable, and that hypochondriasis may prelude and merge into melancholia proper.

Hypochondriacal melancholia is the transition stage, or melancholia in which the hypochondriacal symptoms are most conspicuous. Usually pains in the back of the head, tinglings in the arms, general depression, and self-accusatory delusions predominate, but many insanities are preceded by or are accompanied with bodily discomfort giving rise to hypochondriacal conditions, as in the beginning of paretic dementia or during the course of paranoia. Sometimes a patient of this kind will voluntarily seek commitment to an asylum, realizing his mental disorder.

Melancholia is an insanity with painful emotional depression; but every insanity with depression is not melancholia; nor is the

melancholy necessarily passive, for every extreme of activity or inactivity may attend melancholia. The essential mental states of melancholia consist in worry, presentiments, forebodings, anxiety, apprehension, remorse, or painful mental states, generally, with a tendency to exaggeration into dread, fear, anguish, grief, disgust, fright, or horror. The misery is expressed by the face, attitude, gestures, and speech, and ranges from dejection, with reticence, to defensive fury, or being "paralyzed with terror."

The earlier or lighter stage, degree, or phase, of melancholia may escape observation altogether, until either suicide or homicide results. A lady who had discovered her husband's unfaithfulness brooded over the situation silently, and was observed to be only slightly dispirited for a few days, and finally killed her children and herself. Entire families are frequently destroyed by persons suffering from incipient melancholia; often when the head of the household is out of work, though not always in want at the time. Letters are sometimes written clearly showing the insanity and intentions, and mailed so as to be received after the victim's death. Poison and asphyxiation with gas are often the homicidal and suicidal means. Drowning and hanging are favorite suicidal methods of abandoned women and aged men. The shock sustained in an unsuccessful attempt of the kind, often when corrosive poisons, such as phosphorus, mercuric chloride, or carbolic acid, are used, may terminate the melancholia, generally when too late to save life. Attempted drowning is frequently attended by this reaction.

Alienists with extensive experience outside of hospitals or asylums know that the so-called mild melancholia is more likely to be suicidal or homicidal than the advanced forms of the disorder. The reasoning powers are relatively intact, delusions may not exist, the behavior may be as usual, or gaiety may be assumed the better to hide the real feelings. But upon recovery the patient realizes how far from sanity he had drifted without his intimates realizing that anything was wrong with him.

When the disease has advanced to recognizable insanity, attempts at suicide are apt to be ineffective, silly, inadequate; such as by tying a small twine around the neck with feeble pulling at the ends, sticking pins into the flesh, wading slowly into shallow water, etc.; but at any stage of melancholia irresistible impulses

after months or years. Argument does him no good. Hypochondriacs are apt to overdose themselves with medicines, and thus complicate their imaginary with actual sickness. Females are more apt to be hysterical; and hypochondriasis has been regarded as a hysteria of males. The course is often chronic, though many recover. There is danger that such patients will become addicted to alcoholics or opium because of the temporary relief they afford. The disposition changes and the sufferer exhibits selfishness, egotism, loss of self-control, and weariness of life, and suicide may result.

Hypochondriasis may be an exaggeration of real symptoms, or the insane interpretation of purely functional disorders. Some may complain mostly of head distress; others are concerned with the condition of their sexual organs; syphilis and spermatorrhœa are common occasions of their fears. Suicidal dispositions are noted in patients of the kind who imagine that they are impotent; and dwelling upon the function of reproduction is sufficient to interfere with its performance. Masturbation is usually assigned as the cause of such sexual defects. The throat, stomach, intestines, liver, or rectum engage the attention of the majority, and the digestive processes appear to be felt by hypochondriacs at times, and some are invariably worse after eating. Circulatory disturbances may be conspicuous in some cases; such as flushings, rapid, or irregular heart action, etc., and it is well to remember that underlying all these so-called imaginary, there are some real, functional or organic, derangements, however indefinite or undeterminable, and that hypochondriasis may prelude and merge into melancholia proper.

Hypochondriacal melancholia is the transition stage, or melancholia in which the hypochondriacal symptoms are most conspicuous. Usually pains in the back of the head, tinglings in the arms, general depression, and self-accusatory delusions predominate, but many insanities are preceded by or are accompanied with bodily discomfort giving rise to hypochondriacal conditions, as in the beginning of paretic dementia or during the course of paranoia. Sometimes a patient of this kind will voluntarily seek commitment to an asylum, realizing his mental disorder.

Melancholia is an insanity with painful emotional depression; but every insanity with depression is not melancholia; nor is the

is more common in the agitated, and less apt to occur in the quieter and more stupid. States of digestion, such as too full or too empty a stomach, may induce an outbreak. The sleeplessness of melancholia may vary, but a 4 o'clock awakening in the morning is common. Hot milk, a stimulant, or a little food at such times, may induce a return of sleep.

During the furious stages the heart is rapid, the pulse intermits and is small and tense; the pupils are dilated; the body trembles and is pale and cold; the breathing is irregular, rapid, and sometimes with deep sighing inspirations; the voice has a peculiar sobbing tremulousness; there is general rigidity of the muscles during such furies in melancholia; and the spastic condition is shared by the arteries, which are tense and contracted, though to a lesser extent this may exist throughout melancholia. Little, if any, recollection of these violent spells is preserved. The raving may be frightful and destructive; everyone or anything within reach may be attacked; murder, suicide, or self-mutilation may be committed; glass may be shattered and the pieces used to cut out the bowels, or gash the faces, arms, and hands of attendants or themselves. Usually such frenzies are of short duration, but I have known them to last six hours, and to recur daily or even twice daily. A quiet interval follows, and when final recovery ensues some patients speak of remembering only a terrible pain in the head at such times.

Melancholia agitata is the more generally restless form; the patient runs about wailing and exclaiming, often repeating one cry, such as "O, God!" for hours together, or crying out against persecutions and calamities that do not seem very definite. Such patients are troublesome to manage, and even when restrained may sing or vociferate loudly for long periods, exhibit irritability, refuse food and medicines from various motives, sometimes owing to disinclination to eat at all, sometimes from an idea that they are unworthy of taking food, or that attempts are made to poison them. Giving vent to their ideas of persecution, they may grow very abusive and insulting; they are "wronged, cheated, deprived of lovers or relatives," etc.; and they often make accusations against themselves or others whose truth or falsity it may be difficult to determine; but it is best to discredit the verity of most of such charges as insane ones. One female melancholiac

patient, in my experience, had distinct pyromaniacal propensities. Eroticism may be quite evident, and violent masturbation may be indulged in, which, unless restrained, invariably prolongs and aggravates the insanity.

The delusions may be fixed, but they are not systematized; they usually relate to some insignificant imaginary or real offense committed during the past, and an opportunity may be sought to make a confession in court. Sexual irritation, constipation, neuralgias, or disorders of the senses of smell, taste, and touch, may give direction to their delusions, which, being depressive, take the direction of sensualism, persecution, conspiracy, etc. The delusions may be jealous ones, or to the effect that the patient is pregnant, or that the unpardonable sin has been committed, etc.

Hallucinations are frequent, oftener those of hearing than of sight. Horrible sights and sounds, as of pursuit and torture, devils, imps, electrical contrivances, hell fire, murders, rapes, and innumerable disagreeable performances are common, as are also illusions of the senses, inducing the misinterpretation and mistaking of ordinary matters and appearances.

At first the reason may be preserved upon all points not connected especially with the depressed feelings; but sooner or later there is apt to be incoherence, disconnected ramblings in talk, expression of suspicions, accusations, and if letters are written at all (which is not usually done) the confusion of mind is shown in what is written, especially toward the latter part of the writing, which is often left unfinished. Even during convalescence when a fairly sensible letter may be written for a page or two, delusions or incoherence of thought are apparent in prolonged attempts to write.

Antipathy to members of the family or others may be developed without reason, and it is possible to exert undue influence upon such patients. I know of a case of acute melancholia in which a woman was influenced to make a will which she repudiated as insane upon her recovery, and she was threatened that advantage would be taken of some false confession she had made during her illness, which she pronounced absolutely absurd.

Variability of symptoms from day to day is often of better prognosis. Most cases of melancholia have their better and their

worse times, oscillating between stupidity and excitement, with days when the reason appears to be returning. This change of symptoms is far better than an invariable insane condition.

When lu idity increases and the disturbed occasions grow less frequent and of shorter duration, particularly if the hair becomes oily and tractable and the bodily weight increases after the mentality improves, or at the same time, convalescence has set in. Sleep becomes regular, the bowels are no longer constipated, the menses reappear, and though there may be feebleness of the intellect or a remnant of the delusional state, and sometimes an exaltation of spirits apparently dangerously near some other form of insanity, such as mania or paranoia, in the great majority of cases such unfavorable symptoms abate and the patient, particularly if young, may fully recover, never to become insane again. Even elderly melancholiacs, and those who have become melancholic during the climacteric, often make excellent recoveries. Occasionally, where death from exhaustion or other cause is about to take place, the mind may become entirely clear.

Melancholia attonita, or "thunderstruck melancholia," may be a stage of the ordinary or agitated melancholia, alternating with their usual exhibitions; or it may be a species of melancholia, and not a mere "stupor with melancholia," as is claimed by some authors. Upon recovery, memory is preserved of most horrible hallucinations of all the senses, and that immobility was due to intense fear. The petrified appearance of a patient suffering from this distressing insanity may be varied by sudden dilation of the pupils and the bursting forth of a cold perspiration upon the face, indicating a new experience of some fresh subjective terror.

Melancholia may last for weeks or years, but the usual duration is from three months to a year; the majority recover before the eighth month.

The large number of suicides among the earlier stages and lighter forms of melancholia cause statistics to be imperfect as to the percentage of this mental derangement to insanity in general. The records of various asylums enumerate from 6 to 20 per cent of their admissions as melancholia. Probably the latter figure is not too small an estimate when all cases are included,—one fifth of the entire number of insane.

Females and the young more readily recover, and the agitated and common forms are more likely to recover than the apathetic; the attonita form has the least prospect of escaping death or terminal dementia, into which all the chronic cases pass sooner or later. About 60 per cent of all cases of melancholia recover.

Among numerous debilitating and depressing causes of melancholia are overwork, worry, whether business or domestic, the climacteric, lead poisoning, excessive menstruation, sexual excesses (giving rise to the term "post connubial insanity"), and probably in a large percentage of cases auto-intoxication from altered secretions and constituents of the blood, connected in some way with stomach derangements, constipation, and allied conditions.

Post febrile insanity should be distinguished from both delirium and the ordinary insanities, notwithstanding it may resemble any of these mental derangements. That a true insanity may develop in the course of or after a fever is a matter of occasional medico-legal importance when the question of delirium is under consideration.

Hyslop[1] reviews the writings of numerous authors on the subject, and states that mental disorder may occur during any part of an acute febrile disease, or as the earliest symptom, or during a later stage, or more commonly, toward the termination or period of convalescence. Mania is the most common form; melancholia, stupidity, dementia, ambitious delusions, hallucinations, and insane ideation, following in order of frequency. Thore[2] claims that the commonest form of insanity consists in the sudden onset of acute maniacal delirium characterized by great agitation, with hallucinations of sight and hearing, its duration varying from fifteen hours to three or four days, and the termination occurring as abruptly as the onset. This form occurs, according to Greenfield, chiefly after rapid acute diseases, such as pneumonia and tonsilitis, and much more rarely after typhoid fever. "The diagnosis of these conditions is often attended with extreme difficulty, and it is only late in the course of the disease that its true nature can be ascertained."[3]

Primary dementia is a term that has been used so differently

[1] Dictionary of Psychological Medicine, 985.
[2] Annales Med. Psych., April and October, 1856.
[3] Hyslop, Ibid.

by alienists that it has included too much and too little. Spitzka disapproves of the designation, as dementia conveys an idea of incurability, whereas many of the cases called primary dementia were of curable types. Besides, such insanities as stuporous, confusional, and atheromatous, it has served to name a terminal or secondary dementia the previous history or origin of which is unknown. If a coarse brain disease, or even an obscure disorder, suddenly develops a dementia the dementia is terminal, and secondary to the lesion, and need not be separated from the dementias, from which it does not differ; or the "primary dementia" may prove to be the precursor of an attack of acute mania.

Stuporous insanity, or the "acute dementia" of Esquirol, has been confused with thunderstruck melancholia and katatonia, even by as competent an alienist as Regis, under the term "melancholia with stupor." In melancholia, consciousness and memory are to a great degree preserved and delusions and hallucinations are present, while in stuporous insanity there is feeble, if any, recollection of events, and the apathy is one of pure loss of energy, and does not depend upon a painful mental state, as does that of melancholia. While stuporous insanity usually appears before the twenty-fifth year a patient aged thirty-five years with well-defined stuporous insanity was brought to me in 1890. He caught his wife *in flagrante delicto*, and lost his memory of everything, even that of his own name, and had to be led about, and was otherwise helpless and stupid.

Stuporous states may occur in the course of other insanities, or may precede them; but that fact need not discredit the existence of a primary affection so well defined and recognized as stuporous insanity. The patient takes no interest in his surroundings, is mute unless questioned; and if he answers at all his words are few and not always relevant. His life is a mere routine, and he depends upon others for direction and prompting of all he may do. He will work or remain idle as he is told. Rarely there may be some restlessness, but only for a short while. He may attend to "nature's calls," but more often does not do so. The hands and feet are often blue and swollen and the face may be puffy, with other indications of a sluggish circulation; the expression is idiotic; there is more or less absence of will, perception, memory, or consciousness. Electrical reflexes are lessened,

and there is in some cases no indication that touch, smell, hearing, sight, or taste remains. Young persons are more liable to the disorder, and female patients are said to be more numerous than male. Masturbation is an alleged cause in the majority of cases, but hereditary taint is usually present. A hemorrhage or fright may also cause stuporous insanity. In extreme cases flies may crawl over the face unnoticed, the ball of the eye may be touched, knives may penetrate the person, or the flesh may be burnt without producing evidence of consciousness. Food may have to be placed far back into the throat before the act of swallowing is induced, but many can be started at feeding themselves by having the food put in their hands. The pupils are dilated, the heart feeble, pulse small and rapid, and the feet and hands are cold.

Occasionally a few words are spoken as recovery begins. The insanity may last from a few weeks to two or three months, and sometimes the reason is restored suddenly. Very few cases become chronic or pass to terminal dementia.

A dementia from embolism or cerebral bloodvessel degeneration, such as atheroma, need not be confused with stuporous insanity, though the stupidity and apathy may be superficially alike in all such cases. The advanced age at which these destructive brain conditions appear would suffice to differentiate these forms of "primary" or "acute dementia" of the older classifications.

Confusional insanity was called "primary confusional" by Spitzka, to distinguish it from a secondary confusional he had erected into a class or type as a beginning stage of terminal dementia. Confusional insanity is a rare disorder. I saw one case at the County Asylum in 1883, and another at the Elgin State Hospital in 1895. The first case was that of a young man who was found in a railroad depot talking disconnectedly and unable to give an account of himself. After a week at the asylum he suddenly recovered his reason, and claimed to have no recollection later than going to the depot to take a train after having been on a protracted spree. The other case had also been indulging freely in liquor, but had a faint recollection of someone turning on the gas in his room, with the threat of asphyxiating him, and also remembered that he was rescued and turned into the street, where he was found and taken home. He was also

unintelligible for a week or more, but suddenly recovered his mind with no recollection beyond what was stated above.

Spitzka places the duration at weeks or months, and considers its prognosis as equally good with stuporous insanity, which it also resembles in etiology; "emotional shock, cerebral overstrain, exhausting diseases and excesses, being the principal factors responsible for confusional insanity." The speech is nonsensical and the ideas are incoherent and confused; places and persons are mistakenly named. Headaches are mentioned by the patient, and, amidst the confused jumble of utterances, some idea of the events preceding the outbreak may be gathered. Recovery may be sudden or gradual, but is almost invariable. While the detached sentences may indicate delusions and hallucinations, their actuality is impossible to determine because of the almost complete obscuration of consciousness and memory.

Moral insanity is considered from the standpoints of criminal and civil cases on pages 170 and 306 *supra*. Comparison with the ancient medical idea of moral insanity shows that it has a much wider significance in law, and includes homicidal impulses.

Moral insanity has been abandoned as a term that is too elastic to be used in any system of classification. Old-time disputes over the existence of such a disorder as moral insanity resolved themselves into differences of definitions. All that remains of the once widely used phrase "moral insanity" is the "juvenile insanity" of Kerlin or "moral imbecility." Every reformatory of consequence contains living proof of the existence of such a disorder, and the depravity should be studied with reference to the possibility that epilepsy in some form is at its root. But in 1837 Prichard[1] gave too general a significance to "moral insanity" in his definition as "madness consisting in a morbid perversion of the natural feelings, affections, inclinations, temper, habits, moral disposition, and natural impulses without any remarkable disorder or defect of the intellect or knowing and reasoning faculties and particularly without any insane illusion or hallucination." Many of the cases Prichard describes[2] are plainly enough paranoia, epileptic, traumatic, and hysterical insani-

[1] Treatise on Insanity, 16.
[2] Op. cit., 20–30.

tics. He describes a case of kleptomania, such as occurs in paretic dementia or paranoia, under the head of moral insanity, and on the next page mentions senile dementia as moral insanity; and what Prichard thus included some later authors classified under the equally erroneous name of "emotional insanity," because both the morals and the emotions were perverted. Bucknill and Tuke[1] make this sweeping inclusion: "Emotional insanity, or morbid states of the emotions without delusion, whether of a melancholy character (melancholia simplex), or of an exalted character (partial exaltation, the "affective monomania" of Esquirol), or whether marked by a perverted moral sense or by impulses chiefly of a destructive character (homicidal insanity, etc., without delusion or mental weakness, "instinctive monomania" of Esquirol), constituting moral or emotional insanity proper." "Emotional insanity," these authors further remark,[2] "like the moral insanity of Prichard, is frequently employed in a comprehensive and a limited sense. Either may be made to include all the forms of emotional insanity in which no disorder of the intellect is apparent,—*e. g.*, melancholia without delusion, or exaltation (religious or otherwise) without incoherence. On the other hand, either may be restricted to those forms in which the moral nature is perverted by disease, without as yet intellectual disturbance, and without being necessarily associated with sudden irresistible impulses." Hammond[3] includes under emotional insanities: "Emotional monomania, emotional morbid impulses, simple melancholia, melancholia with delirium, melancholia with stupor, hypochondriacal mania or melancholia, hysterical mania, and epidemic insanity." Bucknill and Tuke[4] finally condense the entire matter into an admission "that the greatest difficulty, no doubt, arises in these cases of uncomplicated emotional insanity in which the mental disorder is of a sudden and transitory character, not preceded by any symptoms calculated to excite suspicion of insanity. Proof of hereditary predisposition may alone be forthcoming, and not even that. It is probable that in nearly all, if not in all instances, there has been *petit mal*. This form of disease has received con-

[1] Psychological Medicine, 49.
[2] Op. cit., 50.
[3] Treatise on Insanity, 292.
[4] Op. cit., 258.

siderable attention under the name of mania transitoria (*vesania anomala*, Sanger and Retzen)." Spitzka[1] says: "It may be advanced as a cardinal canon of psychiatry that in insanity the moral feelings are usually more or less dulled or perverted. It would be unnecessary to emphasize that moral perversion, even to the extent of criminality, is consistent with insanity, had the contrary not been urged by medical witnesses on more than one occasion. It has never been asserted, I believe, that insanity improves the moral sentiments; yet the convictions of insane criminals have been effected by parading their previous records of irregularities and crimes as destroying the claim of insanity. . . . Great confusion has arisen from the use of the term 'emotional insanity.' If this term were to be limited to those forms of derangement in which the perversion of the emotions in the strictest sense is the essential and unvarying feature, it would be a useful designation for the general class of simple insanities comprising mania and melancholia. But unfortunately it has been applied in the very widest sense, and stretched to cover the conception of moral disturbance as well. In the forensic annals many cases of pathological (and nonpathological) fury may be found, where the plea of emotional insanity, transitory mania, moral insanity, homicidal mania or epilepsy, has been made, with the result of confusing the criminal jurisconsulist and throwing discredit on forensic psychiatry."

As "moral insanity" and "emotional insanity" are both expressions that originated in the earlier periods of alienistic study in restricted senses involving misconception and error, and in general application have proved useless, or at least unnecessary, as there are moral and emotional derangements in widely differing insanities, the terms have become obsolete and are now used only historically and indefinitely.

Transitory frenzy has a technical value as a name applied to a special, peculiar, and rare form of insanity. Superficially it would appear to be applicable to any kind of temporary fury, or even to outbursts of anger; but lawyers who have tried to make "transitory frenzy" available as a defense have often discovered, when too late, that, unlike "emotional insanity," which formerly covered too much, transitory frenzy includes so few and such

[1] Manual of Insanity, 56.

definite symptoms that while, as a rule, an attorney would make a fatal mistake to interpose it as a plea where premeditation, deliberation, or a clear motive existed, on the other hand it is a defense which should not be overlooked because of failure to recognize it particularly in cases of infanticide committed by betrayed women.

Otto von Schwartzer, of the Buda-Pesth Hospital for Insane, in a book of 185 pages[1] and in a subsequent contribution,[2] through special study and experience, claims for a certain class of cases of so-called transitory mania, frenzy, or furor, recorded in medical literature, the characteristics of a *per se*, well-defined form of mental derangement, which stands, not only in a loose relation to the ordinary forms of mania, but in reality has nothing at all in common therewith. He describes the frenzy, as do Krafft-Ebing, Spitzka, and others, as arising suddenly and violently in the form of a wild and blind maniacal excitement or fury, with suffused brain and entire absence of consciousness. It is of short duration, lasting from a few to, in rare instances, twelve hours, and terminating in a deep and sound sleep, after which there is speedy recuperation of all normal mental faculties, with complete absence of memory of what has happened during the frenzy. He cites fourteen cases. Instances are narrated by Clouston, Spitzka, Reich, Calmeil, Griesinger, Tardieu, Le Grand du Saulle, Marc, Ray, Rush, and many others; and the phenomena of the disorder, as well as the fact that there is such an insanity, are fully and sufficiently recognized, although it is apparently so rare that the majority of asylum physicians have never seen a case. The transient nature of the insanity and the full recovery therefrom would account for this. It may occur more frequently than the few recorded cases would indicate.

With regard to the medico-legal aspects of the question, von Schwartzer remarks: "How the motor and mental excitements expend themselves depends mainly on accidental external circumstances and the surroundings of the patient. If the latter are unfavorable it may happen that during the paroxysm the patient commits acts which make him liable to be punished by law,—especially if the antecedents of the patient are such as to indicate that he might be capable of committing them. Thus it may

[1] Die Transitorische Tobsucht, Vienna, 1880.
[2] Tuke's Dict. Psych. Med., 1302 (1892).

happen that persons, in consequence of there being trace of prior mental disorder, and the deed being in accord with their mental history, are convicted, although innocent, and perhaps even condemned to death.

"Therefore transitory mania, and especially those forms of it connected with alcohol and parturition, are of great forensic importance. It is a condition of unconsciousness which excludes free will and makes the individual irresponsible while the condition lasts, because there is no possibility of free choice *pro* or *contra;* in addition to this the motives for the deed are merely organic and lie in the morbid excitement and the pathological frenzy. The patient driven by the morbid impulse could not help acting as he did.

"Although in some cases the intellect may be less deranged and consciousness less obscured, and the patient may seem to have a certain method in his doings, we must bear in mind that the association of certain ideas takes place mechanically and as a matter of habit, so that nevertheless the patient was not master of himself and his actions, and was unable to avoid doing what he did. The wrong he did was not intentional, but was brought about by powers over which nobody has any control. Therefore an individual, although doing wrong, under such circumstances is not punishable."

Spitzka[1] states: "Occasionally transitory frenzy is observed in dependence on the extreme agony of childbirth, or as a manifestation of the delirium of the parturient state. In this condition, infanticide, or suicide, or both, are sometimes committed." (See chapter entitled *Childbirth* in this book, for amplification of the subject of infanticide.)

It is probable that some of the evanescent blind furies of alcoholic states are closely allied to, if not identical with, transitory frenzy. Alcohol congests the brain to the extent found to exist during this fury, though authors have recorded at least most of their cases as not having depended upon alcoholism as a factor.

In fact, sound mental and bodily health, without discoverable predisposition, is noted as preceding the outbreak in a large number of cases, and von Schwartzer notes that it is not connected with previous mental derangement or heredity; nor are there

[1] Manual of Insanity, 377.

special bodily or mental abnormalities to distinguish those liable to the fury. There is usually nothing that would indicate an attack to be imminent. Sometimes there has been a period of preceding depression, worry, vexation, or bodily disease, or there has been intense emotional or intellectual strain, sunstroke, overheating, or exposure to extreme cold. Von Schwartzer denies heredity in any case, while Spitzka[1] states that "while epilepsy is not found in the ancestry or collateral relations of such patients, acute mental disorders of a furious or maniacal type are occasionally noted in the family history of others. In my case there was a history of migraine."

The predisposing causes may be summed up as consisting in whatever produces exhaustion, whether physical or mental. Males, and especially the military, are said to be the most liable, and the ages range from twenty to sixty; a few have been children while none have been over sixty.

It has been claimed on superficial comparison of symptoms that the attacks are epileptic; but it would be a peculiar epilepsy that would occur but once in a lifetime and only in the masked form. Besides, the epileptic pallor is replaced by intense redness of the face at the onset of and during the attack. Owing to the terror exhibited during the fury it has also been regarded as a form of *raptus melancholicus*, but that claim is also unnecessary and untenable. The designations have been various; such as mania transitoria, acuta, acutissima, brevis, ephemera, furiosa, subita acutissima, ferox; furor or raptus maniacus, etc. There is a feeling of pressure and heat in the head, the face is red, the eyes glitter and protrude, there is increase of temperature and heart rapidity, and the absence of intestinal or urinary movements. The entire muscular system is involved in the excitement; the development is rapid, sudden, and without warning or anticipation; the ungovernable intense excitement is without purpose or object; cries, screams, shouts, shrieks, or yells accompany the demonstrations; if words are spoken at all they are few, and are either disconnected, incoherent, or indicate illusional fear, such as would be induced by mistaking appearances for hostile or diabolical agencies. Association of ideas is but momentary, if there is any at all; the ungovernable motor impulses resemble those of a

[1] Op. cit., 157.

confused delirium or violent anger. Nor from first to last does the fury change in intensity; the end is as abrupt as the onset; its duration ranges from a few minutes to several hours seldom exceeding twelve. The severe active cerebral hyperæmia, upon which the fury depends, rapidly subsides; the patient falls into a deep sleep lasting a few hours, resembling alcoholic stupor in this respect rather than the shorter epileptic sleep. There may be puffiness and blueness of the hands, and some uncomfortable head sensations for awhile. Very little, if any, recollection of what occurred, remains to indicate that there was any consciousness during the frenzy; and the habitual mental state of the patient returns unimpaired; and, as a rule, there is no recurrence of the attack.

"Running amuck" or "amok," by occasional Malays, may be a transitory frenzy with murderous inclination apparently impartially directed against anyone met with. It was related of one in Borneo, in 1897, that his insane frenzy was aroused by discovering the unfaithfulness of his wife, whom he killed with seven others. Liquor, or some of the plant products to which some Asiatics are addicted, may at times institute the murderous delirium.

Cases of Alleged Transitory Frenzy.

A Swedish girl about twenty years old was brought to the county asylum immediately after recovery from a furious outbreak which appeared suddenly and lasted but an hour, during which she attempted to cut her arm arteries with scissors, and to jump from a window. She had taken a large dose of ergot to restore her menses, imagining that she was pregnant, which proved not to be the case. Her mental anxiety co-operated with the drug, but ergot would be more likely to produce the opposite condition to that of the brain circulation found in transitory frenzy. She was of a low grade of intelligence. The instance is recorded in illustration of a class of cases such as temporary delirium, which, whether overdoses of certain medicines had or had not been taken, closely resemble, if they are not actually, transitory frenzy.

Emma H. was brought to trial in Janesville, Wisconsin, in 1888, for destroying her illegitimate child immediately after its birth.

She was not very intelligent, and had been led astray by other women who induced her to dissipate. She had contracted syphilis at the time of her seduction, and she suffered from congestive headaches, ringing noises in the ears, deranged sensations in the arms, impaired co-ordination, fainting attacks, when, as she said, "everything turned black." Her circulation was defective, knee reflexes were lessened, and later the hair of her head and eyebrows came out. She claimed to have no recollection of the events attending the child-birth, but the next morning the room was found to be in confusion and blood tracks enabled the authorities to trace the dead child to an ash box into which it was thrown with little apparent effort at concealment. The afterbirth was not found. The probabilities were that, after emerging from her frenzy, during which she was quite alone, she may have disposed of the placenta and the child, but this she persistently denied. There was hereditary taint in her case,—insanity in the direct line. (The fact that heredity was absent in cases cited by others does not lessen the probability of transitory frenzy where heredity does exist.) The disorder of the room and the fact that little, if any, attempt had been made to conceal the infant was urged in her favor, and she was allowed to plead guilty to the charge of concealing the birth of an illegitimate child, for which the fine of $250 was imposed.

Mrs. Rawson was arraigned before Judge Tuthill in Chicago, January 25, 1889, on the charge of attempting to kill her husband's attorney, whom she shot during her efforts to obtain a divorce with alimony. Emotional insanity and transitory frenzy were set up in defense. It was shown that upon hearing of some statement that had been made by her husband's attorney, she suddenly turned pale, walked several squares to the court room, and, singling out the lawyer, shot at him, and afterwards tried to justify her act. The attorney was rendered insane by the wound and fright, but finally recovered. The claim was made that the woman had been persecuted, and that false testimony had been secured against her in her divorce suit, and this probably more than the emotional insanity plea, induced the jury to find her not guilty.

In the case of *State of Nebraska* v. *Irvine* in 1892, the plea of transitory frenzy was made in explanation of the killing

of a banker named Montgomery, at Lincoln, Nebraska. Someone had informed Irvine that his wife was traveling in company with Montgomery. At once Irvine telegraphed to her at a small town in Illinois, asking her at what hotel she had stopped in Chicago. She replied at the Grand Pacific, whereupon he interrogated the proprietors of that hotel by telegraph, and was informed that such was not the case. He then came on to Chicago and secured her acknowledgment that she had stopped at another hotel than the one she had named. He went there, paid the hotel clerk for the privilege of tearing out a leaf of the register, on which was recorded Montgomery's name and also a fictitious female name in Mrs. Irvine's handwriting, as occupying adjoining rooms. The porter was induced by a fee to show the rooms to Irvine. He revisited his wife and secured a confession from her in writing, took the night train for Lincoln, arriving the next morning, walked to the hotel dining room, and shot Montgomery, killing him instantly. Irvine then held up some papers and shouted: "This man has ruined my family and I have papers here to prove it," and gave himself up to the sheriff, who took him to the penitentiary to escape a mob which it was feared might take him from the jail. The plea of "transitory insanity" was made the most of in a hypothetical question that was ingeniously worded, but the medical literature clearly disproved the claim in this instance. Irvine was acquitted, however.

CHAPTER XXI.

CHILDBIRTH.

The puerperal, "lying-in," or "childbed," state refers usually to parturition, or "delivery," and somewhat closely related conditions; but conception, utero-gestation, pregnancy, lactation, and weaning, may generally be included under childbirth, as preceding, accompanying, or following the parturient act, and as invariable accompaniments thereto.

During pregnancy the emotions and appetites of many women are changed; though probably the majority escape other than physical departures from former health. Some women develop, at such times, perverted appetites, longings for extraordinary articles of food or drink, which may develop to obsessions or morbid impulses, and cause the sufferers to do things which would not be regarded as sane. Unreasonable prejudices against relatives and friends may appear, and the husband is most frequently, in such cases, the victim of this diseased aversion. In fact, a great range of otherwise unaccountable and irresponsible feelings, promptings, and actions may attend pregnancy, and a disposition of property may be made, under the influence of such aberrant mentality, quite different from what the woman would have made were her intellect not deranged. Eroticism, or even nymphomania, occasionally appears.

Morbid fears, such as of certain persons, animals, or places, or a hypochondriacal distress, may develop, relating usually to what may happen at the time of delivery. Some are certain of death, or that the child will be deformed, "marked," or idiotic. Unreasonable exaltation or depression, bordering on mania or melancholia, may be observed in a few cases. Headaches, dizziness, and sleeplessness, at such times, also point to brain disturbance. The nausea and vomiting of pregnancy may become excessive and cause exhaustion; and this would co-operate with any predisposition by way of heredity or nervous instability, to produce insanity; which is usually, however, a typical and simple melancholia from which there is recovery. With the advance of pregnancy from the fourth to the seventh month the mental

peculiarities mentioned tend to disappear, though insanity instituted at any time during pregnancy would run its course independent of its origin.

Moral or physical influences may combine with the revolutionary physiological changes of pregnancy to bring on insanity at any stage after conception, particularly when there is a predisposition. Worry, grief, great anxiety, etc., such as could be occasioned by loss of husband, or even his unavoidable absence, or by homesickness, are among such debilitating agencies.

Bevan Lewis[1] states that all authorities are agreed upon the infrequency of insanity during gestation. Among his 1814 female admissions only 11 were cases of insanity beginning during pregnancy, but many cases are not brought to asylums. First pregnancies were attended with insanity less often than later, in the proportion of 2 primiparæ to 9 multiparæ. He further observes: "There is usually a period of mild depression for some time observed ere the more acute outbreak of symptoms; nervous timidity is the frequent accompaniment; the patient loses confidence in herself, and dreads that some imaginary evil is about to befall her; she becomes suspicious and often exhibits want of confidence in her husband and relatives. All the cases which required removal to the asylum were fully developed forms of the disease, and, without exception, were instances of acute maniacal excitement; they were not associated with expansive emotional states, but the reverse. Distrust, timidity were apparent in all, and, at times, terror induced by acute hallucinations culminated in frequent frenzied excitement and the wildest conduct. Periods of sullen reserve would alternate with sudden outbreaks of mania; and the subject was usually watchful, intensely suspicious, and suddenly aggressive. There was in most of the cases a special danger of suicidal acts, attempted usually under the influence of some terrible delusion; as in the case of one patient who believed herself seized by Satan, and who made frantic efforts to leap through a window. The excitement is accompanied by great incoherence; but their ramblings usually betray their dominant feelings in frequent reference to bloodshed, murder, treachery, or the like. The most persistent insomnia

[1] Text Book of Mental Diseases, 374.

often prevails, and destructive tendencies are at first obvious. Later on the patient may have alternations of depression and wild excitement, in which she is flighty, meddlesome, treacherous, and prone to vicious conduct. The larger proportion of cases occurred beyond the third month of gestation, and two cases alone left the asylum recovered before their confinement. The proportion of 'recoveries' amounted to 54.5 per cent, while two others left after a long residence, sufficiently relieved for home treatment. Two, however, died, one from puerperal fever and the other from chronic phthisis." Strong hereditary predisposition prevailed in 36 per cent; two other cases died of paretic dementia, and three were congenitally mentally defective.

Neuralgias, overwork, cruelty of relatives, or drunkenness of the husband, are associated with many of these cases.

Paretic dementia has been known to make its appearance frequently during pregnancy, and the childbearing state appeared to induce the disorder.

During delivery there may be a temporary delirium or mild hysteria, a transitory frenzy, or even a maniacal attack. Savage[1] remarks: "It is noteworthy, too, that in some cases in which there has been mental depression during the late months of pregnancy, delivery may take place without any apparent pain, and thus the child may die untended without there being any infanticidal intention." Regis[2] asserts the rarity of childbed insanity, or that which begins at the moment of labor. "Apart from heredity," he states, "it has for its causes either a difficult delivery, or the torments of a clandestine birth, or eclamptic complications, and consists in a temporary, transient delirium, generally of the maniacal type, with sudden impulses, and especially with a tendency to infanticide. Some cases have been reported in which each uterine contraction was accompanied, instead of a pain, with a sudden spell of excitement that ceased whenever the pain was over. Such cases are infrequent."

Spitzka[3] has already been quoted with regard to the liability to transitory frenzy, suicide, and infanticide, in the agony of childbirth, and Clouston[4] records that, in his experience, first

[1] Tuke, op. cit., 1036.
[2] Op. cit., 342.
[3] Op. cit., 377.
[4] Op. cit., 360.

pregnancies were more liable to induce insanity than later child-bearing. Seven of his fifteen cases were first pregnancies, and, five of the total being illegitimate, he concludes that moral causes largely bring on the disease, and that, owing to repugnance to having children born in a lunatic asylum, the real frequency of the disease is not to be judged from asylum statistics, as many cases are undoubtedly provided for at their homes.

Transitory frenzy may occur at the time of delivery, or hours or days later. Savage[1] calls attention to "a period of delirious excitement which may come on during the second or third day after delivery. A *mania transitoria* may arise suddenly and pass off as quickly; the patient will have a flushed appearance, with a full pulse, and active, talkative delirium, with hallucinations, in which she may cause damage to herself and to her child. This state of excitement may be frequently subdued by the administration of a purge and a narcotic at night. Medico-legally this condition is of great importance, because during this period of excitement the mother may commit infanticide, and not only be guiltless as far as responsibility is concerned, but may have not the smallest recollection of what has taken place." Obstetricians such as Charpentier, Cazeaux, Playfair, Verrier, Fordyce Barker, and others, uniformly with alienists, record the occasional appearance of transitory frenzy with infanticide dispositions during or soon after labor.

While Savage considers that fewer women seem to become insane after the birth of illegitimate children than might be expected, he quotes Clouston as stating that illegitimate births in Scotland give rise to an excessive number of cases of insanity; in some cases seduction and the birth of natural children act distinctly as a cause. "Desertion or death of husband and loss of the child may act as severe causes of depression which may pass beyond the normal limit."[2]

Insanity has been observed by some authors as taking place successively with male pregnancies only, and with others only when female children were borne, and not upon other occasions. Pregnancy is also a cause of insanity in those who have had pre-

[1] Op. cit., 371.
[2] Savage, op. cit., 373.

vious attacks. But Savage[1] observes that many women go through other causes of depression without suffering nervously, and yet become insane with each pregnancy or each delivery.

Puerperal convulsions, or eclampsia, occur probably once in five hundred cases of pregnancy, and it is associated so rarely with insanity that I incline to regard the eclampsia as a complication of the puerperal state, rather than a cause of insanity. The convulsions begin with an invariable turning of the eyes and head to the left in a tonic spasm, followed by a twist to the right, before the general convulsion occurs. Playfair[2] was the only author who appears to have recorded this fact, which I have observed in the few cases in my practice.

Hallucinations of sight are quite common after recovery from puerperal convulsions, with some mental hebetude and memory impairment, before and after the attack. The "visions" of such patients are quite vivid. One of my cases saw imaginary persons about her bedside, and for a month after was troubled with these optic hallucinations, while her mind was otherwise clear. Another lady was afflicted with appearance of roaches, which finally diminished to flies, and then to lice, six months after recovery, and then these disagreeable sights faded out altogether.

Though childbirth may be followed by any kind of insanity, such as hysterical insanity, melancholia, dementia, etc., the maniacal form has peculiarities which, in Griesinger's[3] opinion, require a special designation.

Puerperal insanity, or that which occurs within fourteen days after childbirth, is much more frequent than either lactational or pregnancy insanity. Ten years' English statistics show that 6.7 per cent of 69,560 female insane were such from parturition and the puerperal state, while 1 per cent were insane with pregnancy as the assigned cause. Mania is much more frequent than melancholia; and the latter is apt to develop later and be what is often called lactational insanity.

Savage[4] points to the hereditary neuroses as commonly met with in these cases, and states that insanity follows the birth of

[1] Op. cit., 69.
[2] Midwifery.
[3] Mental Pathology and Therapeutics, 142.
[4] Tuke, op. cit., 1036.

first children more often than other deliveries. As one quarter of such cases die they do not, therefore, run the same risk again; and he considers childbearing after the age of thirty especially dangerous. Other authors claim that subsequent deliveries are more frequently associated with insanity, and such has been my observation.

The milk or lochia may be present or absent; insomnia, restlessness, inclination to talk a great deal, may call attention to the attack, the beginning of which may be either gradual or sudden. The patient may mention an uneasy feeling in her head, or that she is afraid she will lose her reason; she finds fault with her nurse, husband, or child; and often takes a violent dislike to all around her, especially her husband and infant. She grows suspicious, is easily startled; sounds and lights annoy her; the pulse is rapid and small, the eyes are bright, and the skin is pale, her bowels are confined, the temperature is normal, the appetite is bad or variable, her tongue is tremulous. The sleeplessness increases, and she is harassed by disagreeable dreams, often starting up suddenly in bed with rambling incoherence. Hysterical excitement and chattering follow; sometimes there is blasphemy and vulgarity, regardless of previous habits and disposition; she may talk amorously and make mistakes in the identity of persons. Delusions and hallucinations are evident; she shouts or listens to imaginary persons, rejects her food as poisoned. Sometimes she tries to climb up the wall, or persistently strips herself of clothing, even oftener than the ordinary maniac. The disposition throughout is one of irritability and abusiveness. Occasionally jealousy of the husband may be intermingled with the aversion shown him. Misleading abatement of symptoms sometimes occurs, followed by renewed excitement.

An inherited predisposition is recorded by most writers in puerperal insane cases. Savage gives an instance in which both mother and daughter became insane during childbirth. Some not only have an attack at each recurring delivery, but grow progressively worse. Cases of insanity disappearing after conception may be coincidences, or the return home after an outbreak is subsiding probably causes more rapid recovery, which is mistakenly ascribed to having become pregnant again. It is best to allow such patients to leave the asylum as soon as they can be

cared for safely at their homes, as deterioration in puerperal cases has been known to follow in consequence of too long residence in the asylum after recovery has apparently begun.

Lewis[1] enumerates two thirds of the West Riding Asylum puerperal cases as maniacal, and the other third as melancholic. The maniacal affection he characterizes as "essentially one in which there is intense excitement, great incoherence, continuous garrulity, and a dangerous explosiveness, which may issue in most desperate impulsive conduct. There is, moreover, a special proclivity to indulgence in obscene language, indecent exposure of the person, and genuine nymphomaniacal states; or the deep-rooted erotic feelings may, partially controlled, reveal themselves in the sudden gestures, sexual glances, or prurient demeanor in a less obtrusive manner." Visual and aural hallucinations occurred in 17 per cent of his cases. 63 per cent showed delusions chiefly of persecution, intrigues, poisoning; that the life of the patient or that of her children was threatened, etc. Suicidal propensities were observed in 25 per cent usually prompted by delusion. "Attempts to murder the offspring have been frequently recorded; and no woman suffering from this form of insanity should be brought into close relationship with her children." He classifies 68 cases found at this period as acute mania 31, melancholia 13, mania with delusions 7, simple mania 7, simple melancholia 8, acute melancholia 1, melancholy with stupor 1.

Referring to the determined aversion to the child of which the puerperally insane mother has just been delivered, Hammond[2] says: "Esquirol[3] in pointing out that the murderous tendencies of the puerperal maniac are not due to a desire which might exist of concealing the birth of a child, from shame or like motive, refers to the case of a young woman who, being pregnant, made no secret of the fact, but got ready for her labor, and prepared the clothes for the child. The evening before her confinement she appeared in public. During the night she was delivered. The following morning she was found in her bed, but the infant was stuffed down the water closet, and mutilated with twenty-one

[1] Op. cit., 365.
[2] Treatise on Insanity, 642.
[3] Des Maladies Mentales, 115.

incisions and punctures with some sharp instrument, probably a pair of scissors. Shortly afterwards she was arrested and carried on a stretcher a distance of two leagues from the house in which she was confined. During the journey she talked deliriously, and appeared not to know for what she was arrested. Several days subsequently she acknowledged her crime, but refused to eat.

"Morel cites the case of a woman twenty-one years old, who had been delivered eight days previously, and who, when she came under his observation, was in a high state of maniacal excitement, her eyes haggard, her hair disheveled. 'I am the devil!' she said, throwing herself furiously on those around her. It was necessary to take away her infant, for she wished to strangle it.

"Fortunately the opportunities for the subjects of puerperal insanity to murder their infants are not many, but in two cases that have come under my charge the attempt to do so was made. In one a woman who had been delivered of a male child nine days previously, suddenly exhibited signs of mental aberration. The infant was removed to an adjoining room in charge of a nurse, but the mother got up in the middle of the night, while her husband slept on a bed in another part of the room, and, going to where the child lay, seized it by the neck and attempted to strangle it. In the effort she uttered a cry, 'Die, you hateful thing!' and so loud that the nurse awoke in time to save the infant's life. In the other the patient had become insane four days after delivery; the child had been removed from her, but she expressed so urgent a desire to see it that it was brought to her. The instant she had it in her arms she dashed it toward an open window about 5 feet distant. Fortunately the infant struck against the sill and fell back into the room.

"But in every other case, without exception—and they amount to fourteen in number—the patient has exhibited either active aversion to the infant or a passive indifference fully as much at variance with the maternal instinct of love for her offspring manifested, with more or less strength, by the female of every species of the higher animals."

From 75 to 80 per cent recover from puerperal insanity, in from two to nine months usually, but occasionally recoveries

have taken place two and a half years afterward. About 8 or 10 per cent die, and the remainder may become chronically insane.

Ephemeral attacks of insanity and a temporary delirium occurring about the time of the milk onset may also cause infanticide.

Lactational insanity may also be any form of mental derangement, but is far oftener melancholia from exhaustion, particularly if the menses or another pregnancy combine as drains upon the system. The beginning is usually sudden, about six weeks after confinement. There is pallor, giddiness, palpitation, shortness of breath, depression, apprehension, irritability, delusions of unworthiness, and hallucinations of sight, hearing and smell, with special delusions and aversions regarding the husband. There may be dangerous impulses, and even a change to maniacal excitement with murderous tendencies, and the same obscenity, and infanticidal disposition may arise as with the puerperal insane. Sleeplessness and dread are the earliest symptoms. The duration is usually from three to eighteen months. 80 per cent recover, and from 5 to 8 per cent die.

CHAPTER XXII.

PERIODICITY.

Periodical, or recurrent, insanity is considered by many alienists as indicative of degeneracy, for in the majority of the periodically insane a constitutional defectiveness, or an hereditary taint, is evident; and matters that would affect the sane multitude but indifferently, if at all, become exciting causes of an attack in patients thus predisposed. For instance, the menstrual period in one, the change of seasons in another, may be associated with recurrences of insanity, or its change from one to another form. The evolutionary periods of puberty and the climacteric institute the insane cycles in some cases, though the latter epoch has, in a few instances, also ended the mental trouble. Head injury or alcoholism may originate the degeneracy upon which the recurrences are based. The stigmata of degeneracy are also present in many cases; but there is not sufficient evidence of phrenasthenia, bad family history, or acquired degeneracy to prevent dispute as to the propriety of classifying all periodically insane as degenerates. It certainly appears that healthy influences, possibly those transmitted by sounder ancestry, are at work in certain classes of the periodically insane, and antagonize the tendency to mental degradation. Nor are we justified in regarding as degenerate "malarial" insanity of the periodical type, unless, indeed, we consider such intermittency as possible only in a predisposed person; but in so doing we would include vesanic characteristics, and put simple melancholia, mania, or even delirium, in that class, which would be going too far.

Relapses of insanity may occur, although the patient may not be a "periodical." But a number of such relapses might constitute periodicity. There are, however, in addition to the recurrence, other signs of the type under discussion: the sudden onset of insanity of the same kind as before, with the same duration, delusions, propensities, and even the same language, with abrupt termination of the insanity for the time being. The length and frequency of attacks increase in most cases; others remain station-

ary through life; while a few gradually diminish or stop altogether. Lucid intervals are more or less complete, but some insanity of manner, or at least an instability, remains between attacks in most cases. Some patients seek the asylum care when they realize that an attack is coming on.

Periodical mania, unlike simple mania, does not usually begin with depression, but certain physical symptoms, compared by Krafft-Ebing to the warnings of epilepsy, often precede attacks. Heart rapidity, flushings, vertigo, and neuralgias among the periodical maniacs are followed by an angry rather than pleasurable excitement. Impulsive acts, indecency, thefts, and incendiarism, are often noted in such cases; and "most of those patients described as kleptomaniacs are periodical maniacs in whom the propensity to steal predominates over the ordinary symptoms of mania."[1] Dipsomania, or the periodical craving for stimulants and narcotics, is clearly allied to periodical mania, and may constitute its main exhibition. I have known epilepsy to alternate with attacks of dipsomania. Regis distinguishes between intermittent and remittent mania, where lucid intervals occur in the first named, and there is continuous insanity in the last, with exacerbations.

Periodical melancholia is usually preceded by physical symptoms similar to those of periodical mania; and there is reason to believe that in both maladies a poison is very often formed in the system, which is a cause of the recurrence of insanity. Malarial cases, and my case that occurred after the patient was stung by bees, would point to something of the sort in certain individuals; just as poison oak may affect a few persons, even at a distance, while others are much less susceptible to it. Spitzka[2] states what I have been able to verify in my cases, that "it is worthy of note that periodical melancholiacs are the most persistent, cunning, and successful of all suicidal lunatics."

Katatonia has undergone singular vicissitudes as to recognition, which can be easily explained. Many alienists do not grant its existence except as symptoms of melancholia with stupor. Had Seglas and Chaslin, and their following of opponents of the

[1] Spitzka, op. cit., 270.
[2] Op. cit., 271.

existence of katatonia, studied actual cases, instead of the reports of Kahlbaum, Hecker, Hammond, Spitzka, and other alienists who describe the disorder, they would have been fully convinced. Clemens Neisser[1] gives a recent *résumé* of the subject, and from personal study of several cases I can vouch for the accuracy of the description.

The disorder is rare, and until Kahlbaum's time had been wholly overlooked. It appears that every new differentiation in psychiatry has to fight its way. The now easily recognized paretic dementia as an entity was denied for many years by some writers on insanity, and is often unobserved to-day, because of superficial examination of patients. A case of katatonia must be followed day by day for weeks or months, and a full record kept of characteristics, unless the peculiar attitudes, stagy behavior, or cataleptoidal state happen to be noticed; and even then these symptoms may be carelessly passed by as accidental occurrences in ordinary melancholia with stupor.

Kahlbaum's description[2] has been since verified by too many competent students of insanity to be lightly overlooked. Depression, melancholia, mental uneasiness, and distress are succeeded after an uncertain duration by a stupid, immobile stage, in which the breathing may be very slight and the eyelids are seldom moved, and the drooling of thick saliva usually occurs; and often patients have been supposed to be dying at such times. There is a cataleptoidal condition accompanying this stupidity, which is not found in other "double form" insanity. The limbs may offer some resistance to the attempts of others to move them, but when once the patient is forced to take any position, as by lifting an arm or leg, if equilibrium is practicable that attitude or gesture may be maintained for hours by the katatoniac. Even uncomfortable positions will be thus sustained. Certain automatic movements may be slowly repeated, and the lips are often protruded. The state has been called one of waxy mobility or immobility, as pushing or pulling may produce a change of posture, which is also persisted in. Such patients may also refuse to speak for indefinite lengths of time, appearing, at times, as

[1] Tuke, op. cit., 725.
[2] Die Katatonie, Berlin, 1874.

though about to do so, and then failing. Food will not be taken and there is difficulty in forcibly feeding patients at this stage. Then, suddenly and without warning, a furious maniacal stage may set in, during which murderous assaults are frequently made, resembling the blind fury of the epileptic insane. Epileptic convulsions have sometimes preceded the insanity, or have occurred at various times during its course. At times the mania may be of a subdued type, during which there is a declamatory, stagy manner peculiar to the disease. Attitudes may be voluntarily held, and the muscular positions appear to suggest appropriate actions, too often offensive ones. Hallucinations of sight are present in nearly all instances. Sermons may be slowly repeated, or attempted, according to the ability of the patient. Theatrical postures and quotations are common among them, and school teachers thus affected deliver didactic harangues in a measured voice. The murderous impulses of katatoniacs necessitate more careful study of their symptoms in connection with the alternating insanities.

I published[1] several instances of katatonia which came under my observation at the County Asylum, and at the Alexian Hospital I had two other cases which developed during acute muscular rheumatism, which is said to be a cause of the mental disease.[2]

This peculiar insanity has escaped the notice of many alienists for the reason, among others, that *the length of the different phases is variable.* Some katatoniacs pass rapidly, within a few hours, through the depressed, stupid, cataleptoidal, and maniacal forms. Some are mild in behavior and manifestation of symptoms generally, while others are quite the reverse. The stuporous stage has often been mistaken for melancholia attonita, but it is clearly distinct as will be apparent if it is closely observed. Some cases pass months or even years in one condition. R. H., at the County Asylum, passed through all the opposite and dissimilar stages several times in a few months, and, finally, when sent to the Eastern Illinois Hospital for Insane, was recorded there as a maniac, and without repetition of his former peculiarities was discharged recovered a year later.

Apparently there is no exact duration or rotation of phases,

[1] Chicago Medical Journal & Examiner, February, March, May, 1884.
[2] Western Medical Reporter, January, 1886.

but careful recording will reveal them. Recoveries are frequent, but many also become chronic and pass to terminal dementia, in which some one stage may be observed as prominent.

Katatonia often presents such puzzling alternations of evident insanity and apparent sanity that newspapers at times sensationally mention "a remarkable case that baffles the doctors;" and if crime has been committed the supposition of feigning is strong among the inexperienced. Newspaper telegrams mentioned a case September 17, 1897, at Bellevue Hospital, New York, which presented these alternations and which was doubtless katatonia.

Circular insanity, or insanity of double form, was more completely announced by Baillarger[1] under the name *folie à double forme*, and Falret[2] about the same time published an incomplete description of the same mental ailment, to which he gave the name *folie circulaire*. Baillarger's conclusions were essentially: "1. There exists a special variety of insanity characterized by two regular periods; the one depression, the other excitation. 2. This species of insanity may appear: (a) as an isolated accession; (b) the seizures following each other in an intermittent manner; (c) occurring without intervals between the paroxysms. 3. The duration of the accession varies from two days to a year. 4. When the accessions are short, the transition from the first to the second period is sudden, and ordinarily takes place during sleep. It is effected gradually, however, when the accessions are prolonged. 5. In this last case the patients seem to pass into a stage of convalescence at the end of the first period; but if the return to health is not complete after fifteen days, a month, or six weeks at most, the second period is developed." In Germany the designations are *die cyclysche Psychose; das circuläre Irresein; periodischen Manie abwechselnd mit Melancholie.*

Ritti[3] has given by far the best account of this mental disorder, which has an important medico-legal aspect, due to the spendthrift character of many of such patients, and their inclination to make various complications in business matters, as well as to the fact that some cases have roused entire communities for and against them.

[1] Bulletin de l'Académie Impériale de Médecin, XIX. 340 (1853-54).
[2] Leçons Cliniques de Médecin Mentale, 219, Paris (1854).
[3] Traité Clinique de la Folie à Double Forme Paris, 1883.

In a later communication Ritti gives an English version[1] of his work, which because of its accuracy is of great value to both the legal and medical professions.

That melancholia and mania alternated at times in the same patient was recorded as far back as the seventeenth century by Thomas Willis, an English physician. Griesinger in 1849, among others, mentioned the frequency of such occurrences; but until Baillarger and Falret examined this form of insanity more closely, its actual features had been unobserved. The mania and melancholia may closely follow one another, or be separated by an apparently sane interval.

There is a remarkable resemblance of successive attacks to preceding ones; the same symptoms; the identical conceptions, actions, and course recur, so that predictions can be made in some cases as to the time when certain phases will take place.

The expressions "excitement" and "depression" would fit the stages better than "mania" and "melancholia," because, while the former terms would include the latter, the insanity may be too mild to be characterized as mania or melancholia, though partaking of their nature.

Under "Symptomatology" Ritti[2] thus describes the disease:

"*Period of depression.* This does not present, in all cases of insanity of double form, the same character. Certain patients show symptoms of depression of all physical and intellectual powers only, while others suffer from actual melancholia, which may pass into stupor. We have, therefore, to describe: (1) Mental depression; (2) melancholia; (3) melancholia *cum stupore.*

"1. Mental depression is characterized by the chief symptoms of simple melancholia; the patients look sad without having melancholy delusions. They are depressed and inclined to immobility; they do not generally move if not compelled, and they very often lie down. If compelled to get up they will sit down in a corner where they cannot be disturbed, and remain there the whole day without stirring, so great is their tendency to immobility. They are easily fatigued; they are incapable of any effort; it is even painful to them to speak, and if they decide to answer questions they do so very slowly. If one insists upon

[1] Tuke, op. cit., 215–229.

[2] Ibid., 216.

asking them how they feel, they complain about their painful condition and their physical and moral suffering. They are the most miserable creatures, they say; they have lost all their physical and moral activity, and are conscious of this insufficiency of their physical and intellectual powers.

"This depression, of which the patients are conscious, extends also to the moral sphere, and is especially characterized by complete indifference for those dear to them. They themselves also recognize that they have neither sentiment nor affection for their parents or children; they have lost their feelings for everything, and even the death of persons dearest to them leaves them absolutely indifferent.

"Depression of physical power, intellectual obscuration, moral indifference, incapability of acting, and absence of will (aboulia), are the principal characteristics of this condition of mental depression, which shows itself in the expression of the patients by the following signs: The face has the look of sadness and weariness, the features are contracted, the brows frown, and the eyes generally look down to the ground. The patients seem completely closed to the outer world, absorbed in their sufferings, and not taking the least interest in anything going on around them; but really this is not the case; they hear and see and are occupied with everything, and when the excitement comes on they make use of all they have seen or heard during the period of depression, either to complain about it or to mock at it.

"These patients present themselves to the observer under two different aspects, whether they are observed in asylums or at liberty. Placed in special establishments they must submit to the common reglement, and are generally dressed properly and well nourished. To arrive at these results, however, they have to be stirred up incessantly. But if at liberty—and indeed many of them are—we can easily imagine how they are living. Locked up in their homes for whole days, for weeks, sometimes even for several months, they live in perfect inactivity, constantly lying in badly ventilated or hermetically closed rooms. They do not care at all for their person, neglect all rules of propriety, are only half dressed, and scarcely think of taking food. It is easy to understand that in such a condition of self-neglect the patients require constant looking after by their family or others.

"2. *Melancholia.* Although the greater number of patients laboring under insanity of double form remain within the limits of this physical and moral depression, there are others whose condition becomes complicated by delusions of a melancholy nature. These conceptions may be classed under four principal headings: (a) In certain patients we see on the constant and unchangeable soil of moral and physical depression, disgust of life—*tædium vitæ*—develop itself as a natural consequence; ideas of suicide also come on sooner or later and begin to predominate. Some, unable to resist their morbid desires, make an end of themselves. (b) A second class of delusions, and which cause great distress to the patients preoccupied with them, are those of ruin, incapacity, culpability, and condemnation. In this class the period of depression assumes all the characteristics of *mélancolie anxieuse*, save, however, the incessant mobility observed in this form of mental disorder. The patients live in a constant fright; they suffer from fear and uneasiness, sometimes vague, but often well defined. They are criminals; they have committed the unpardonable sin; a mother rebukes herself for having her children brought up badly, and for having given them insufficient instruction and education; another patient is convinced that all the other lunatics around him suffer on account of himself, etc. At the same time these patients look much frightened; the expression of their eyes is most sad and full of despair. They remain sitting all the day long, and twist themselves about, so to say, on their seat, with low cries of complaint, or deep sighs. They speak in monosyllables only, or in short and interrupted phrases, as if they were afraid to avow the cause of their uneasiness and trouble. (c) The third category of delusions of a melancholy nature is those of persecution with hallucinations of hearing, ideas of imprisonment, and, in connection therewith, sometimes refusal of food. In addition to these ideas of persecutions these patients sometimes develop mystical ideas. They believe themselves to be in communication with celestial powers, and the persons around them are demons or agents of Satan. (d) Lastly, these patients may pass through the period of depression with hypochondriacal ideas. They complain of numerous painful sensations seated in very different parts of their bodies; they ascribe them to their food, which causes them all

sorts of diseases. In the morning they want to remain in bed to be examined by the doctor, and, like all hypochondriacs, they become angry if one does not admit their imaginary illness. Their faces express suffering and they spend the day under continuous complaints."

3. *Melancholia cum stupore.* This stupor in the course of insanity of double form appears to have constituted, with the catalepsy also mentioned by Ritti, katatonia peculiarities. To some extent, circular insanity, plus catalepsy and stupor, is essentially katatonia.

The physical symptoms of circular insanity proper are loss of weight, impaired nutrition, decrease of all secretions, as the saliva and tears, dry skin, constipation, slow respiration and circulation, cold extremities, which are swollen and bluish, facial cyanosis, menstruation unchanged, irregular, or suppressed, sometimes the latter during the excited stage, to reappear during depression. In some there is hyperæsthesia internally; painful pressure of the head may be felt, or there may be neuralgias in the joints or between the ribs. The majority are averse to light and prefer the dark, or sight and hearing may be dulled during the depression, but regain their acuteness during the excited period.

"*Period of excitement.* Like the period of depression, the period of excitement does not present identical symptoms in all patients laboring under insanity of double form, not even in its different phases in one and the same patient. If some show intellectual excitement only, others, on the contrary, pass into a state of maniacal agitation and even of actual mania. We have therefore to describe: (1) Mental agitation; (2) maniacal excitement; (3) mania with ideas of exaltation.

"(1) *Mental agitation.* This condition is very much like that described under the names of *manie sans délire, manie raisonnante, délire des actes*, etc."

M. Jules Falret[1] has given such an exact and vivid description of it that we cannot do better than reproduce it:

"What specially characterizes this mental condition is the general over-excitation of all the faculties, the exaggerated and abnormal activity of sensibility, intellect, and will, and also the

[1] Etudes Cliniques sur les Maladies Mentales et Nerveuses 490, Paris, 1890.

disorder of conduct without decided derangement of intellect and without incoherency of speech. These patients, indeed, if examined superficially, do not seem to be insane; their speech seems coherent and reasonable; they cause surprise by the activity and fertility of their ideas, by their *esprit*, and by their vivid imagination, but equally also by the violence of their sentiments, by their instinctive impulses, and by the disorder and the eccentricity of their actions.

"These lunatics move incessantly, and their physical corresponds to their intellectual and moral activity. They get up during the night to go for a walk in the country; they undertake very long walks and journeys. Their intellects are, as it were, in fermentation, and suggest a thousand undertakings and plans, which often are abandoned as soon as conceived. Their ideas multiply in their minds, and from this rapid production of thoughts results, naturally, a special disorder, which cannot be compared with the incoherency of mania, but which presents a more irregular succession of ideas than in the normal state.

"Memory is over-excited, like the other faculties. A number of former ideas arise in the mind, and the patients are themselves astonished at remembering a great number of often insignificant facts, which they believed had faded out of their memories long ago. They remember long phrases from classical authors, which they learned in their childhood, and of which they were able to remember only isolated fragments before their illness. They compose speeches and poems. They speak and write incessantly, and often with a variety of terms and aptness of expression which they did not possess in the normal condition. They chat uninterruptedly, and relate stories without end, at the same time giving themselves up to most *bizarre* and eccentric actions. If they are at liberty, they spend their time in paying visits, and stay for whole hours at the homes of their friends or even at those of strangers, and force themselves upon them regardless of good manners and social customs.

"Under the influence of their exaltation they become rash and enterprising, often even insolent and rude. They take liberties with persons they meet, and familiarities which were at other times unknown to them. They see nothing shocking and revolting in their own conduct and behavior toward others, but they

themselves are very easily offended by the simplest observations addressed to them. They are, in one word, susceptible, irritable, and disposed to dispute and even to quarrel on the most futile grounds. Their sentiments and instincts have thus undergone a change at the same time with their over-excited intellects. They have become mischievous, difficult to live with, disposed to do harm, to provoke, and even to play roguish tricks. Their language reflects their new character; it becomes strong. They are often smart and witty in their replies, but mostly very offensive. They grasp with a certain facility the comic side, or the faults of those with whom they come in contact, and always choose words which they know to be the most painful to throw in their faces. They invent a thousand stories and lies; they collect all the facts which they hear related, and, going from gossip to calumny, they depict persons with whom they live in a most false and spiteful manner, giving their stories the appearance of probability. Thus they succeed in creating quarrels and disorder everywhere around them, and making all social life impossible. One must have lived with such patients to form an idea of the infernal stories they are capable of inventing, and of the mischief they spread over all their surroundings. In short their sentiments and instincts are wholly transformed by the disease; men formerly kind and benevolent become violent, passionate, vindictive; often are led to telling lies and committing robberies; and are cynical in word and action. They acquire faults and vices foreign to their former natures, and which render it impossible to live with them.

"It is necessary to insist a little longer on the eccentric actions which the patients commit under the influence of this mental exaltation. Some, to satisfy their restless activity, change every article of furniture in the room; they work in the garden and uproot their plants and trees; they undertake public work, and in fun turn everything upside down. Others change their lodgings with each period of excitement; and others, again, make purchases not in accordance with their means, or they enter into all sorts of speculations.

"Among the instinctive impulses which more especially characterize this period, Baillarger has classed kleptomania, dipsomania, nymphomania, and satyriasis.

"*Kleptomania* is observed among the greater number of patients suffering from circular insanity, during the period of excitement. They take everything they find, without trying to conceal it, and take the most worthless and useless objects. We knew a patient who was in the habit of stealing from her companions, during the stage of excitement, books, toilet objects, or other knickknacks, so that from time to time a search had to be made in her room, because most of the things were certain to be there, of the disappearance of which the other patients complained.

"*Dipsomania* may in some patients be the result of intense thirst; in others, however, it is an instinctive craving manifesting itself with each period of agitation. Hence their tendency, when they are at liberty, to stay for whole days in public houses, etc. Hence, also, not only their state of drunkenness, but also symptoms of acute and subacute alcoholism.

"*Eroticism* shows itself in various degrees, from simple flirtation to satyriasis and nymphomania. In certain patients the whole interest is confined to a taste for dressing and for society, to display and to a great desire to marry (*gaménomanie*). In others again the erotic excitement assumes a more marked character. Men seek obscene conversation, and everything they hear and see provokes on their part smutty observations; and if they are at liberty they molest every woman with their proposals. Some suffer from actual priapism, go with women or give themselves up to unrestrained onanism. In the other sex there is a complete loss of all reserve and modesty; well-educated women and girls cast amorous glances, use obscene language, assume lascivious postures, and practice masturbation to excess, or throw themselves into the arms of the first comer.

"(2) *Maniacal excitement with incoherence.* In some cases the period of excitement we have described assumes a paroxysmal form, or the character of violence, similar to mania or even to frenzy; but after a few hours', or, at most, a few days' duration, simple intellectual excitement, for the time interrupted, pursues again its course with the usual symptoms.

"In other cases, more rarely, however, the period of excitement consists entirely of a genuine attack of acute mania. The patients are then for several weeks, sometimes several months, in constant excitement day and night; they jump, shout, run, or

dance; their hair and clothing are disordered; they tear everything, break the furniture, window panes, etc.; they undress, take their shoes and stockings off, and run with naked feet in the streets. Their ideas are as disordered as their actions. It is impossible to hold any reasonable conversation with them. They incessantly express the most nonsensical ideas; men think themselves to be God or the devil, women to be the Holy Virgin, etc.; they do not recognize anybody."

Under "*mania with ideas of exaltation*" Ritti describes circular insane cases with delusions of grandeur. They are great personages, extremely wealthy, etc., and these and other characteristics in some cases cause a resemblance to paretic dementia, which may mislead the ablest alienist, particularly at the outset of the disorder before the alternations have been repeated sufficiently often to enable one to form an opinion.

Physical symptoms, during the excited stage, are feelings of excellent health and general well being. There is never fatigue; the appetite is increased to voracity; there is genital excitement, acceleration of the respiration, and circulation; the bodily weight increases; there are signs of head congestion; sometimes transitory loss of consciousness, or genuine epileptiform convulsions, slight embarrassment of speech, and temporary paralysis. These congestive symptoms appear, as Falret observes, "mostly in the last stages of the disease, and may in some cases be considered as the cause of the often sudden death of these patients, when it takes place during the period of excitement."

"Let us now observe," says Ritti, "a patient when the excitement is subsiding. The violence in words and actions becomes less, and the patient has arrived, as J. Falret styles it '*à un état de calme plat;*' at a sort of mental equilibrium, which might be compared to the smoothness of the sea between the two tides. Soon the stillness becomes greater and greater, and the mobility so characteristic of the period of excitement gives way to a desire for rest; instead of chatting, seeking society, and paying visits, the patient prefers to be silent and alone."

There is a period, in some cases, of transition in successive oscillations, that is somewhat rare.

The lucid interval between two attacks may be short or long; hours or months; but great caution should be used in regarding

one as sane at such times. The fullest opportunity to test the condition of the mind might fail to discover the real state of the intellect at such interval.

The duration of each attack may be from one day to a year or more. Certain cases are annual, each period lasting six months, the depression occurring in autumn or winter, and the excitement in spring or summer, or *vice versa*. One case at the county hospital was melancholic ten months, and maniacal one and a half months in winter.

Insanity of double form commences at puberty or in adult life; the causes are heredity, head injury, hysteria, epilepsy, shock, etc. Recovery is so rare as to be doubted; chronicity, and finally dementia, transformation into another form of mental disease or death, is the usual ending.

The disease is more frequent among women than men. Falret says the proportion is one man to four or five women.

As to its frequency, Foville, Ritti, Cailleux, and others say it occurs in about three or four patients in every one hundred insane.

Falret states: "If the lucid intervals are of short duration the patients must evidently be kept in the asylum. But if the lucid interval lasts several months or several years, we are obliged to restore them to their family in spite of serious inconvenience which may result from it; and we must be guided by the knowledge of previous attacks and of the divers phases which the disease has passed through up to the moment when we were called to observe the patient."

Forensic medicine. Ritti's observations on this aspect are peculiarly valuable:

"Laws with regard to insanity of double form have still to be made. But there may, nevertheless, be circumstances in which the physician would have to intervene, either with regard to the responsibility or capability of a patient suffering from insanity of double form. And, in fact, we know from the symptomatology that the patients may, during the period of excitement, commit actions of all kinds,—all sorts of robberies, unjust accusations, gross libels against persons who have rendered them great services; others may damage their fortunes or the reputation of their families, making inconsiderate purchases, contracts of sale,

hazardous speculations, even wills, etc. It might then be necessary to insist upon interdiction of these patients.

"What in these medico-legal questions is the rôle of the physician? In insanity of double form the expert will find in the symptoms, and especially in the course of the affections, the best means of giving evidence before the magistrate. If an act has been committed at the commencement of the attack, when the disease is not yet well defined, or even at periods of an attack, and if the patient does not present any symptoms of insanity, and seems to have recovered, a sort of equilibrium having established itself, the knowledge of the course of the disease will allow of replying in a decided manner. In the former case, the physician is able to affirm that insanity will show itself again in its two phases; in the latter, that the patient, far from being recovered, will enter into a new period of his affection, and the subsequent event will justify the prognosis. The questions relating to insanity of double form demand, as we see, much clinical sagacity, and we must acknowledge that practice alone gives us the ability to understand the varieties which each particular case may present."

Isaac Ray[1] either before or about the time of Baillarger's description of circular insanity, recorded an excellent review of the subject, with illustrative cases, somewhat confused with the matter of "moral insanity," but easily disentangled, inasmuch as any mental alienation in that day exhibiting moral perversion was likely to receive that title. Ray's comments will be found of use in medico-legal considerations of this (often very troublesome) class of court-room patients.

He says: "There is another very common and well-marked form of insanity, the manifestations of which are chiefly confined to the moral sentiments. Its characteristic feature is that of excitement alternating with depression, the two conditions varying considerably in different cases, in point of intensity, and also—as well as the intervening interval—in point of duration. The general traits of the first-mentioned condition are an unusual flow of spirits, great self-confidence, sanguine anticipations of the future, restlessness both of body and mind, and untiring loquacity. Usually these traits are only strong enough at first to

[1] Medical Jurisprudence of Insanity, § 145, p. 171 (ed. 1853).

modify the ordinary character of the individual, without raising the slightest suspicion, and not uncommonly giving the impression that the person has been indulging too freely in drink. Sooner or later they become more strikingly developed, and exert an unmistakable influence upon the conduct and discourse. He engages in enterprises, moral, social, or commercial, either manifestly beyond his means, or in one way or another inappropriate to his condition. Especially is he bent on speculation, and nothing comes amiss capable of gratifying this passion. Whether it be a farm or ship, a mill privilege or a city lot, a parcel of trumpery jewelry, or the odds and ends of a two-penny auction, he is equally ready to buy, and equally sanguine of getting a good bargain. He is constantly yielding to some new fancy, and ardently prosecuting some of the countless schemes that swarm in his teeming brain. He frequents company either above or below his own grade, while perhaps he amazes and mortifies his friends by the levity of his manners, if not the laxity of his morals. His movements are abrupt, rapid, and unseasonable. He is fond of taking long journeys, and horse flesh suffers under his hands. He sleeps much less than he usually does, and is fond of being up at night, roaming about the house or neighborhood. He is always ready with plausible reasons for his strangest conduct, sufficient to silence, if not to satisfy, any troublesome inquirer, while his discourse is entirely free from delusion or obvious incoherence. With all this there is generally an utter disregard of the feelings of others, an imperious and even tyrannical deportment towards those who are dependent upon him, and a disposition to trample upon all domestic conveniences and proprieties. The slightest attempt to restrain or control his movements, or even to administer advice, is met by the fiercest hostility, and any intimation of mental infirmity provokes his hottest wrath."

Ray then describes the state of depression that follows as presenting a complete contrast to the exalted stage, and remarks that[1] "in point of duration the two states are generally equal, as compared with each other in the same case, though varying in different cases from one month to a couple of years. In point of severity, too, they are subject to the same rule. The excitement

[1] Ibid. § 147, pp. 173 *et seq.*

may be confined to an unusual flow of spirits, to an increase of self-confidence, and a fondness of self-magnification, while the patient attends to his ordinary duties, evincing no loss of his usual intelligence and discretion. Or it may be manifested by boisterous and violent conduct, by a disposition to engage in foolish enterprises, and an utter abandonment of all regular and appropriate employment. So, too, the state of depression may vary from what passes merely for low spirits, to the most profound and painful melancholy, attended with keenest distress and disposing to suicidal attempts.

"The interval between these two conditions, when the individual appears to be perfectly rational and natural, also presents the same kind of uniformity, in the same case, and the same kind of diversity in different cases. In many, and perhaps the majority, of cases, it has no appreciable duration as a distinct condition, the periods of excitement and depression passing into each other, with scarcely an interval between. In others it may continue as long as, or even longer than, either of these states, although, as is more frequently the case, it is considerably shorter. Generally the lucid interval follows the excitement and precedes the depression, but sometimes the excitement passes abruptly into depression, and this more gradually is followed by the lucid interval.

"Another feature worthy of notice is that the duration of these several states occasionally changes in the same individual. In one case that came under observation, they gradually changed within four or five years, from one month to eight or ten months. Generally the longer the duration of the excitement and depression, the less prominent and distinct is the lucid interval.

"This form of mental disease, when the periodicity is once fairly established, is peculiarly intractable to treatment, and may continue for years; but then it finally assumes a more continuous and uniform character, until its original phasis entirely disappears.

"The contrast often presented in moral mania, between the state of the intellectual and that of the moral faculties, is one of its most striking features. These patients can reason logically and acutely on any subject within their knowledge, and extol the beauties of virtue, while their conduct is filled with acts of folly,

and at war with every principle of moral propriety. Their moral nature seems to have undergone an entire revolution. The sentiments of truth, honor, honesty, benevolence, and purity have given place to mendacity, dishonesty, obscenity, and selfishness, and all sense of shame and self-control have disappeared, while the intellect has lost none of its usual power to argue, convince, please, and charm. We once asked a patient who was constantly saying or doing something to annoy or disturb others, while his intellect was apparently as free from delusion or any other impairment as ever, whether, in committing his aggressive acts, he felt constrained by an irresistible impulse, contrary to his convictions of right, or was not aware, at the moment, that he was doing wrong. His reply should sink deep into the hearts of those who legislate for, or sit in judgment on, the insane. 'I neither acted from an irresistible impulse, nor upon the belief that I was doing right. I knew perfectly well I was doing wrong, and I might have refrained if I had pleased. I did thus and so because I loved to do it. It gave me an indescribable pleasure to do wrong.' Yet this man when well is kind and benevolent, and in his whole walk and conversation a model of propriety.

"In nothing, however, is the intellectual soundness more strikingly evinced than in the ingenuity with which these persons endeavor to explain the folly and absurdity of their acts, and reconcile them to the ordinary rules of human action. By entirely denying some alleged circumstances in a particular transaction, adding a little to one and subtracting a little from another, and giving a peculiar coloring to the whole, they will convince the unguarded observer that there is some mistake about the matter,—that they acted precisely as anyone else would under similar circumstances, and that they are the victims of misrepresentation and unkindness."

The following case from Ray[1] is given fully, as, through the failure of a community to realize the insanity, occasionally both civil and criminal considerations are at stake, and, as he says: "These are no uncommon instances of that condition of mind so often mistaken for anything rather than what it really is—mental

[1] Op. cit., p. 181 (sec. 159).

derangement. Its true nature was here recognized by intelligent practitioners who looked beyond the circle of a definition, and might have been recognized, perhaps, by others of narrower views, in a calm investigation for therapeutical purposes; but, amid the excitement produced by great criminal acts, and the struggles between knowledge and ignorance, truth and prejudice, that spring up in judicial investigations, how seldom, alas, has it been discerned.

"Col. M. was a man of superior intellectual powers, and moved in the higher walks of society. He was a lawyer by profession, and was appointed district attorney in one of the southwestern states by President Jackson, whom he had previously served in a military capacity. Towards the meridian of life, his conduct became so disorderly and boisterous that he was often confined in jails or hospitals for the insane. On one of these occasions he cut off his nose, and subsequently came to Boston in order to have it replaced by Dr. J. Mason Warren, by means of the rhinoplastic operation, which proved quite successful. While in Boston he made the acquaintance of Dr. Bell of the McLean Asylum, for the purpose, as he declared, of getting his aid in obtaining redress for the wrongs he had sustained in being placed under guardianship and confined in jails and hospitals, his object being, not to retaliate, but to protect his future reputation.

"The doctor has kindly furnished such particulars of his case as came to his knowledge from various sources: 'I inferred that he was naturally of a proud, arrogant, and extravagant spirit, which was kept in check, while she lived, by the discretion of his wife. He was sensual, but not intemperate until his nervous system had become excited. His peculiar theory was, that while he admitted that he had held—and, towards the last of my interview, avowed that he then held—certain fanciful notions which we might term delusions, if we pleased, still they were such as did not interfere with his right to entire liberty of action. "For instance," he said, "I feel that I am cousin to the Duke of Wellington and to Napoleon. It seems ridiculous. I can't make it out by any kind of proof. I even laugh at it. But still, I dwell upon it as a reality. It concerns nobody else. It has in it no dangerous element. Why, then, should I be interfered with for harboring a delusion, if you choose to call it so, no more absurd

than a thousand religious sects feel themselves happy in resting upon." He would argue thus: "I protest against being called insane on account of my ideas. For my actions I am accountable. I never yet claimed—I never will claim—immunity as an irresponsible being. I will permit no one to set up such a defense for me. Try me by the laws of the land and the strict rules of evidence, and I will abide by the result, as a good citizen, but I must have opportunity to argue my own cause, and examine the witnesses brought against me." He had often been arrested for assault and battery, but always continued to beat the complainants by his familiarity with legal proceedings, and by his quick perception of whatever made for or against himself. If in his best estate he had been counsel for another party, he could not have managed the case better than he did his own. However wild, extravagant, and boisterous at hotels and such places, of which he was the terror, as soon as he was in the atmosphere of a court of justice, he become calm, dignified, and respectful, but tenacious to the last degree. For example, when carried before the police judge in New York, on a warrant, the printed form of which had been in use for twenty years, setting forth that in consequence of insanity "or otherwise" he was dangerous to be at large, he at once advocated successfully his constitutional right to have the offense set forth specifically and precisely.

"'He had most carefully considered the extent of his rights; the precise amount of force justifiable in ejecting an unwelcome guest, or, what was a more common event, in resisting an ejectment; the obligation of innholders to receive applicants; and the value of proving the first blow in defense of assaults. On one occasion, thinking the hackmen and cabmen of New York were insolent and exacting in regard to the right of way, he armed himself with a heavy whip, took a good witness by his side, and drove through Broadway in a strong carriage, running against every charioteer who failed to give him his exact half of the road. This of course produced a collision of tongues as well as wheels. His peculiarly sarcastic language tempted a touch of the whip from some of his opponents, and upon this our hero turned to and thrashed them within an inch of their lives. They appealed to the courts, but his witness soon and truly proved the aggression on them.

"'While in the Pennsylvania hospital for the insane, and again, I believe, while in the jail in Washington, he got discharged by means of a writ of habeas corpus which he was allowed to sue out. When thus brought before the court, he argued his case upon the settled legal doctrine, that an ability to distinguish right from wrong is the sole test of sanity. Of course, no judge did or could hesitate in opinion, that a gentleman who was able to make an elegant and an astute argument on the nature, origin, and protection of the rights of the subject, could, by any means, be within the category of individuals intellectually incapable of discriminating between right and wrong. In fact, processes of detention as a lunatic held, in his case, only until he could get before some tribunal. And yet when thus turned loose upon society, he was a passionate, dangerous lunatic. When hard pushed by evidence of extravagant and boisterous conduct, he would attribute the fact to his having unfortunately taken a little too much wine (which was probably true to some extent), comprehending perfectly that an offense of that kind would be followed by a much lighter consequence—a mere fine, in fact—than seclusion as a lunatic. When the self-mutilation was alluded to, he would most frankly attribute it to his ignorance of physiological laws, and allege that his lost organ being covered with blotches and carbuncles he cut it off, absurdly supposing that nature had a renewing power, as in the growth of the hair.

"'After he became so wild in his conduct in Boston as to be a universal annoyance, I advised his friends in Missouri to place him under care as a lunatic. They replied that the thing was impracticable; that no institution had been found able to hold him, and they would not arouse his vindictive feelings by any further trials of that sort. His intemperate habits increased, and his delusions became more palpable, yet without affecting his intellectual power. The idea returned, that parts of his face, if removed, would grow again, and he cut out the cicatrix on his forehead whence the nasal flap had been taken. Fortunately death stepped in at this point, and removed a man whose fate was so melancholy, for under all the ravages of mental disease, there were traces of noble sentiments and lofty aspirations."

Referring to the different phases of insanity in which such cases are seen by different people, the liability of one to describe

him as excited, another as depressed, morose, and gloomy, the family seeing his worst side, his perverted affections, indifference and hate, Ray concludes:[1] "These are the cases that confound the wise and defy the scrutiny of the skilful, while they tempt the superficial and conceited to betray their ignorance, under the delusion of superior penetration; which tarnish many a professional reputation, and expose even the pretensions of pure science to popular mockery and derision."

A Chicago instance of circular insanity is outlined under "Cases of Periodical Insanity," at the conclusion of this chapter, and the points of similarity to many in the case cited by Bell and Ray are striking, and will be of advantage to physicians and attorneys who seek the interdiction of such difficult cases, in the patients' and their families' interest.

Mickle[2] describes a circular insanity form of paretic dementia. The beginning of circular insanity may be readily mistaken for paretic dementia.

Cases of Periodical Insanity.

Mrs. R., aged 38. Defective nervous organization, agitated and hysterical melancholic attack regularly every other day. During her so-called sane days she laughed at what was told her of what she had done. Her face would become soggy and icteroid, her heart would beat rapidly, and delusions of persecution, with violent crying spells, followed, lasting eight or ten hours. She was persistently suicidal. The case was seen by me but a few weeks.

M. Recurring melancholia, cited in Cases of Degeneracy.

B. Recurring mania, thirteen times maniacal in nineteen years; cited in Cases of Degeneracy.

Julia C. Recurrent melancholia, apathetic, prays constantly when worse. At eighteen years of age she was insane eight months; at twenty-six six months; at forty two months; at forty-two eight months, and the last recovery appeared to be permanent.

Augusta N. Overwork caused mania with a six months' inter-

[1] Ibid. § 163, p. 188.

[2] General Paralysis of the Insane, 28, London, 1880.

val, and then a melancholic attack from the same cause. Whether this is an insanity of double form can only be known by further recurrences. During her last attack she would speak a few words intelligently, and then become confused and talk "gibberish."

J., an Iowa gentleman, was stung by bees and thereafter became melancholic every fourth day, when he was so determined to commit suicide that only constant watching prevented him from so doing.

Mrs. H. For six years, about yearly, she suffered an attack of apathetic melancholia, somewhat stuporous, associated with profuse menstruation: as the hemorrhage was corrected she finally recovered, and for four years has not had an attack. The attacks would appear and disappear suddenly, sometimes lasting six months.

Mrs. W. Recurrent agitated melancholia; first attack when forty-three, during menopause; the second at the age of forty-nine; the third when fifty-eight years old. The duration and severity of the recurrences are lessening.

Ellen D. House burned down two months before her baby was born, and seven months later she suffered from severe headaches, sleeplessness, vertigo, and spells of blindness; imagined that her house was afire, and was maniacal five months and apparently recovered. Insanity recurred at next pregnancy, and for many years thereafter she would have two or three attacks annually, beginning with a pain in the side and back, with costiveness and coated tongue. Purgatives sometimes postponed a recurrence.

J. H. B. Recurrent mania about every other year, when he may become suddenly very violent and remain "disturbed" for a few weeks. He then engages in business and manages his affairs quite well, but takes the precaution of having an attendant ready and always at hand.

F. S. Katatonia; stupid on arrival at asylum; muscles rigid; delusions of persecution; thought his friends wanted to kill him; suddenly refused to eat; saliva oozed from his mouth; and from June to October, 1879, he remained in this immobile stupid state, but October 10th brightened up, and said that he remembered everything that had occurred, and had heard voices commanding him to be silent. October 22d became suddenly cataleptic and

stupid, with atonic bowels. October 28th gradually improved to November 25th, when he became apparently rational. January 15th maniacal to July, 1880, when he recovered apparently, and was sent home, to be returned January, 1881, and was alternately melancholic, cataleptoidal, and maniacal. Finally by December, 1883, noticeably growing demented.

E. P. Katatoniac female aged twenty-three; cataleptoidal and stuporous three months at a time, during which saliva oozes from her mouth, and she maintains forced attitudes for hours. She suddenly emerges from the stupor, and invades the rooms of other patients, often turning sommersaults down the corridor. This stage also lasts about three months. Her catalepsy is longer in winter than in summer, but one cataleptic attack lasted only from December, 1883, to January, 1884, and a mild maniacal attack following, she relapsed the next day into catalepsy, and another alternation occurred, and finally continuous mania developed.

L. P. Katatoniac after sunstroke; attacked attendant with a knife when emerging from stupor. He had remissions of a few days, when he appeared to be sane.

R. H. Katatoniac alternated stupor with catalepsy and mania, with theatrical attitudes and speech; made a murderous assault upon an attendant; was later removed to another institution and recorded there as maniacal; finally recovered.

A drunken katatoniac disemboweled his wife, and rushed shrieking into the streets in Chicago. The alternations of his insanity puzzled the authorities; at times he was apparently sane and at others undoubtedly insane. He was finally sent to the penitentiary.

F. C., a well-known lawyer of Chicago, suddenly developed circular insanity and created extensive newspaper comment. During several trials in different courts, there was widespread interest in his affairs, and bitter dissension as to his mental condition. Though now fully recognized as insane, he has managed to remain at liberty most of the time, to the serious detriment of his fortune and family interests; owing mainly to the fact that there is no law that sufficiently recognizes the peculiarities of circular insanity, and the necessity for conservation of property at a time when the patient appears to be sane, during the so-

called lucid intervals. In March, 1889, he was brutally clubbed upon the head by members of a "machine" political gang at a ward primary; and whether this injury was the beginning of his insanity, or the aggressive political reform spirit he manifested prior to this and which led up to the assault was due to the insanity having already developed, is difficult to determine. The head injury was a severe one and enough in itself to cause insanity, particularly in one predisposed by heredity, such as, it is said, existed in his case. It is likely, however, that the unusual activity he had taken in public affairs for a few years previous may have been symptomatic of the commencement of his mental change. In August, 1887, he acted as special messenger to the Queen of England from the Chicago Jubilee Committee, to deliver the address of British-Americans of that city, which as chairman of the committee he doubtless had much to do in framing. He was committed to a state asylum and during a remission was discharged as "recovered." During July, 1890, his insane behavior caused his wife to have a police officer reside at the house to protect her and the children, but August 18, 1890, he became furious under the restraint and was taken to jail. Captain Hayes of the police station concluded it was not right to risk the lives of his family longer, while hoping for his recovery, and he was sent to the detention hospital pending his insanity inquest. He wrote a petition for a writ of habeas corpus, and on its being refused by one judge, he sent to another. To the first he addressed this letter, which is printed to indicate how apparently clear the mind may be while the writer may be dangerously insane:

"Judge G.: I see by the papers that you are reported as saying that I am going around the country acting disorderly and that there was no doubt but that I was insane; that my wife was in danger and I was a public nuisance, and this on the judicial consideration of my application for a writ of habeas corpus. After that time you came to see me, you said you thought I was sane. If you are incorrectly reported you will, of course, make the necessary corrections. If not, permit me to say that your remarks were unjudicial, unkind, uncalled for, and untrue, and I expect you to promptly apologize. For your visit and for your kind statement that you believed in my sanity, accept my thanks.

I have been insane, but when I was I knew it. I am not now insane, but am the victim of a conspiracy, and am entitled to the sympathy and consideration of the public. I am now incarcerated without due process of law. With honorable exception of yourself and other gentlemen, my friends, God save the mark, who swarmed around me with sycophantish adulation and flattery in the days of my prosperity, and who shared my purse and my best efforts politically and otherwise, have faded away like the baseless fabric of a dream. Awaiting your early reply, I remain, sincerely your friend."

His trial in the county court drew crowds, and a swarm of witnesses testified to his perfect sanity; some went so far as to speak of him as "eccentric," but very few aside from his family regarded him as unbalanced. He conducted his own defense, and with considerable adroitness and ability. When his appearance at a summer resort wearing a "blazer" was referred to, he accounted for it by stating that, being temporarily out of funds, a landlord had kept his trunk so that he had no coat at the time. A Kansas City telegram to the Chicago papers spoke of his kissing and hugging opera girls, riding horses into houses, and indulging otherwise openly in roystering behavior, and squandering money. "Oh, but you know that I traveled on passes to those places," said the ever-ready attorney, and delving into an inside pocket he threw a packet of annual and trip passes on the table; and the witness concluded that the newspaper account might have been exaggerated. He said, while examining a witness: "Do you know what I went to Kansas City for? I'll tell you. The papers had been writing me up; they had pictures of me playing with opera girls, and all that kind of thing. I threatened them with suits and made them back down, and next day there were long editorial retractions. Now, was that the act of an insane man?"

His valuation of some property was regarded as an insane one, and he ingeniously explained that matter away. A circuit-court judge who had known the defendant seventeen years, among others, testified to his sanity. It was claimed that he had been in street brawls, and had had an altercation with the secretary of his club, whom he called a "fatuous featherhead" for informing him of his dismissal; that he had slapped inoffensive

messenger boys, and had smashed in some doors at his own house and elsewhere; that he had worn extraordinary costumes on the street with enormous bouquets on his coat; that he was offensively obtrusive and often insulting; was squandering his own and his sister's money; that he surrounded himself with newspaper reporters whom he treated lavishly as though relishing his notoriety; he abused his wife and even mentioned her degradingly in the court-room. It was further testified that at the asylum he was "untruthful, unscrupulous, abusive, and the reverse of his former character;" he made foolish purchases of gaudy sashes and Turkish pipes, and appropriated things belonging to others; he exhibited salacity and would accost any woman who struck his fancy. He wrote to his law partner, threatening to kill him if he continued to tell newspaper men that he was insane.

The Daily News of that date stated: "The remarkable fight for liberty now being made by F—— C—— in the county court, where he is on trial for insanity, is a matter of general comment. His case is one of the most unique in medico-legal annals. Here is a man who, numerous witnesses for the prosecution have sworn, is a lunatic and totally unfit to be at large; yet he has handled his case in a manner which would reflect credit upon the ablest member of the Chicago Bar, and he has, furthermore, succeeded in confusing almost everyone of those individuals who have given testimony unfavorable to him. His exhibition of wit, repartee, legal knowledge, and accurate memory has been remarkable. In view of these facts the case has attracted widespread attention, and is of interest to every citizen, because, as one man remarked to an Evening News reporter: 'If an individual can be sent to an asylum because he is excitable and eccentric it is high time the public was finding it out, and making preparations to build an insane asylum on every street corner.'"

The opinions of prominent men were sought and published as interviews. A few regarded him as insane, but the majority expressed themselves as follows: "There is method in his madness, if such may be called his eccentricity." "He seems to act too shrewdly for a crazy man." "I have always considered him eccentric, but he is a smart, shrewd, sharp lawyer." "He has been unduly excited, he needs rest. I don't think he is insane." "He is as sane as anybody." "He acts queerly, but I can't say he is

insane. That term is too broad. His eccentricity is curable." The United States marshal said: "'Tis true, he is somewhat forcible at times, but that cannot be insanity." "He is peculiar but does well for a crazy man." "He is smart, but eccentric; I think he will defeat the people who are trying to make him out insane." And so on through a column of opinions similar to the foregoing, revealing the value of lay judgment in such matters.

The defendant's examination of the policeman who was at his home was comical. The obtuseness of the officer was taken advantage of, to show that the very acts cited as proof of insanity were really sane ones, and, when too difficult of such explanation, C. disposed of them as jokes. It was not so much what the defendant said, as how and when he said it, and his general insanity of manner, that revealed the mental failure; but the policeman could not grasp such ideas, and was at a disadvantage. His quarrels and rows, and even violence, were similarly facetiously and skilfully disposed of amid the applause of the court-room mob, composed largely of the identical political ruffians who were responsible for his head wound, but who fastened upon him now to rob him through pretense of friendship. When asked by his law partners why he should have lied so about his wife and defamed her, he replied: "Well, when a man is in danger of being imprisoned he might do equally strange things,"—while frankly acknowledging that his charge was false. It would be a degraded mind that could regard such an act as consistent with sanity under the circumstances, yet it was so claimed to be by people who had credit for a fair share of intelligence, though most took refuge behind the miserable expedient of claiming to believe he told the truth about his family matters. It is astonishing what perverted logic such a case may reveal.

One of the experts was mercilessly held up to ridicule by the attorney. He made him acknowledge mistakes made in expert testimony in other cases, and confused him so that he lost his temper. When loss of memory of recent events was instanced as a feature of the insanity, the lawyer rattled off a connected history of matters that had occurred in the past two years, and then claimed that the doctor showed the very symptoms he alleged as constituting C.'s insanity. The agnosticism of the witness was also taken advantage of, to show that "one who had no

belief in future punishment should not be allowed to swear a fellow being into an asylum." The mob applauded and the newspapers remarked that the expert left the stand "looking like a man who had been pulled through a 6-inch sewer."

A mass meeting of British-Americans was called "to aid the persecuted attorney in his struggle for liberty."

About two weeks were consumed in the trial and finally the court could come to no conclusion, and released the defendant on trial, with a bailiff to attend him. He put up at the Auditorium Hotel, and made himself obnoxious with his excitement and oddities, mainly by forcing himself upon strangers and seeking large loans. He was expelled and went to the Wellington, where he registered as "His Royal Highness the Duke of Wellington," then to the "Richelieu," and finally again at the Auditorium Hotel he played his pranks, tipped a waiter with a $25 check, ordered the bridal chamber, informed an hotel clerk that he was worth millions, and declared that his check would be honored by "all the rulers of the world."

If drinking complicated his insanity it was not so obvious, but doubtless it had something to do with his actions. His insanity became apparent and he was rearrested. He made furious efforts to escape, and, being a powerfully built man, nearly killed an attendant. April 18, 1891, he raved maniacally for many hours, and finally, when quieter, he was given into the custody of an old friend, who promised, out of the pure kindness of his heart and from the affection he had for the patient, to take care of the insane attorney; but he soon had to relinquish his undertaking, and the patient was taken to the county asylum, whence he escaped disguised as a woman through the aid of an old lady who fancied she was doing a creditable thing. The superintendent refused to take the patient again, as he said, "C. knocks out my attendants faster than I can get new ones." At the state asylum he had made his presence equally felt. In May, 1892, he applied to the county court to be made clear on the record, and, being refused, sued out a writ of error to the appellate court. June 10th, 1892, he turns up at a national convention in Minneapolis, and the following was telegraphed from that place:

"Solomon in his glory was not arrayed as is F. C. this morning. When he arrived here a few days ago his costume was

comparatively modest, although by no means free from eccentricities. Now it has grown so by constant addition that it appeals as much to the sense of hearing as that of sight. The prevailing tone of dress as he walked through the Nicollet House corridor to-day was red. His head piece was a red felt blouse surmounted by a red velvet monkey, that was in turn surmounted by a red plush hat. Around the monkey clustered various other ornaments, also of a gory hue. He carried a red umbrella, over which waved a mammoth red plume, decorated with clustered scarlet ribbons. Altogether the Chicago lawyer is a sight not to be easily forgotten. Barring an occasional row now and then, he gets along peaceably enough. He furnishes amusement for a good share of the convention hangers-on by various eccentricities. He has harangued the people from nearly every rostrum and curbstone in Minneapolis, and is billing the town this morning setting forth the reason why Englishmen are against Harrison and for Blaine."

June 16th he mysteriously disappeared from Minneapolis, but traces of him were found on all sides, so the papers said: "A fashionable Third street tailor received an order for thirty-five fancy vests and a dozen suits of clothes from him; a dog fancier had sold him a dozen blooded pups; and several hack-drivers had driven him about the city in their carriages. His curious actions had attracted general attention here."

July 8th following, he was reported in jail at Cedar Rapids, Iowa: "This morning he hired a rig and drove the horse so hard it is thought it will die. He guided the animal into a marsh, and let it remain there, and then proceeded to the farm of Gus Thorn, where he purchased a fine stallion and a large amount of fancy stock. He gave papers and a gold watch and chain as first payment. He hitched up his newly purchased horse, and drove back to the city, and put in the remainder of the day in purloining what he could find. This evening he entered the room of a guest at his hotel, and took a large amount of gold leaf. The theft was soon discovered and traced to him, and was the principal cause of his arrest."

July 13th, 1892, he was brought into Chicago county court, and again defended himself. He catechized the county physician regarding his knowledge of insanity, and quoted from a great

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array of medical works. The jury, however, on this occasion, were only five minutes declaring him insane. In October, 1892, he had passed to the quiet form of his insanity, and the foreman of a grand jury addressed Judge Tuthill as follows:

"I desire to call your honor's attention to the condition of a prominent lawyer now confined in the insane asylum at Dunning. Although the jury which listened to his case believed him insane, I want to call the attention of the court to the manner in which he is incarcerated. He is confined in one of the wards with insane patients, and I was informed by a doctor there that he is not incurable, and that the grand jury could find no signs of his insanity." The judge replied that he had had much to do with the case, and had found him unmanageable, but a writ of habeas corpus sworn to by the patient was handed to the judge. The first assistant county physician, of the time, favored his release, stating that he believed him to be sane. November 4th, 1892, he was released on a parol of thirty days. He filed an application for a bill of divorce, and asked for the custody of his children. He published a pamphlet entitled "Souvenir," in which he vaunted himself and his great deeds; and he occasionally contributed columns of abuse of experts to the newspapers. He described one of the doctors as having "the manners of a Patagonian, the dress of a Zulu, and the face of an orang-outang." In some way he regained possession of his estate and children, during one of the abatements of his excitement, and lives in a suburban town where during the winters he remains secluded, melancholic, and scarcely moving from his chair, except to retire early. He shows penitence, it is said, at such times, and greatly regrets what he has done. In the early summer he grows excited again and resumes his antics. Once he appeared in a town with what he called a double tandem team; three horses headed by two, and finally one in the lead, with a similar arrangement of big and little dogs tied to his open conveyance behind, only the dogs were placed in reverse order, the smallest being in the rear while the larger three dogs were next to the carriage. He distributed quantities of fish to the townspeople. I saw him once riding a horse which was blanketed with an advertisement of a newspaper, and he was addressing a curbstone crowd. His maniacal accesses correspond to the summer and his melancholic to the winter seasons, and his

"lucid interval" enables him to get his property, which is wasted disgracefully. His wife has fared badly in securing protection of his estate or the custody of their children.

This case is reported at length in the hope of contributing to a better understanding of the peculiarities of circular insanity, and to enable the professions both of law and medicine to rectify the inevitable wrongs to persons and property that arise from ignorance of such matters.

CHAPTER XXIII.

HYSTERIA.

Hysteria in any or all of its protean exhibitions may be generalized as a defectively controlled nervous system, commonly found among women, occasionally in children, and less often in men.

As the brain correlates all the organs and the functions of the body, the brain and mind as well, derangement of such correlation produces in hysteria mental, emotional, visceral, sensory, and motor phenomena peculiar to the disease and almost defying enumeration or full description. Many organic diseases are associated with deranged nervous control; and when hysteria debases the workings of different groups of nerves, it very often simulates a great range of serious ailments. Hysterical disorders have often been mistaken for asthma, bronchial and pulmonary disease, spinal injuries, brain tumors, joint diseases, rheumatism, stomach inflammation, cancers, cholera, typhoid fever, meningitis, spinal myelitis, locomotor ataxia, paralyses, and a host of similar complaints having a more or less organic background. Equally often hysterical symptoms may arise in the course of severe diseases, and the complication may induce neglect of timely care and treatment.

Motor disturbances are numerous in hysteria, and may be classified as depressed, exaggerated, or perverted. The legs or half the body may be paralytic and remain powerless temporarily for years or permanently. Electrical tests show the reaction of degeneration absent in cases simulating spinal paralyses. Rigid contraction of the muscles and tendons may be associated with paralytic conditions, usually following them. Under anæsthetics these contractions cease; and sometimes, under mental or emotional influences, hysterical paralyses, and in fact any or all hysterical phenomena, may abruptly end.

There may be spasms of any part of the muscular system. The commonest is in the throat, and causes a feeling as of a ball rising there, known as the *globus hystericus*. The stomach and intestines may be cramped, resulting in eructations, flatulence, rum-

blings, vomiting. There may be visible bunching of the intestines, or of the muscles and blood vessels. Such swellings, known as "phantom tumors," remain awhile and disappear as suddenly as they came. Hysterical convulsions are often mistaken for epileptic, but differ from them in symmetry, and in other ways known to the experienced. In hysteria the spasms contort the body irregularly, rolling it about, affecting first one side and then another; whereas in epilepsy both sides of the body are generally convulsed at the same time. In hysterical convulsions there is often screaming or exclamations; the body writhes and rolls about, with kicks and contortions, ending often in a prolonged faint, with rapid heart and pulse. Such "sinking spells" are frequent at any stage of hysteria, and may simulate comatose conditions and be mistaken for them. Heavy sweats have occurred, and when there is painful menstruation the hysterical exhibitions may be at their worst. Attacks of sleeplessness accompany many kinds of hysteria. There may be hemorrhages from portions of the skin; in France women have been known to bleed from the palms, soles, sides of the body, and forehead, in imitation of the crucifixion wounds; showing how powerful the imagination may be, in some debased mental states, in producing physical effects. Hysterical patients are therefore the most easily influenced by quacks, hypnotists, mental suggestions, sudden shocks or threats, and by various emotions, fright, etc.

Some are peculiarly affected by music or riding, being compelled to breathe in time to sound or motions; others have distressing hiccoughing attacks. Some have a noticeable tendency to gain and lose flesh rapidly. Most hysterical people look younger than they really are. Hammond was probably the first to call attention to this as common in all persons of nervous instability.

When a disorder is the basis of an action for damages it frequently occurs that the plaintiff has some kind of a fit in the court room; and whether it is real or feigned is a matter to be determined by physicians of experience. The effect of such fits upon most juries is to influence their verdicts.

There is often suppression of urine, saliva, or tears, in hysteria; but the very opposite may occur, and there may be a copious flow of saliva or tears, and what is called *urina spastica*, or the pass-

age of great quantities of colorless urine, usually after an hysterical attack. Hysterical fits may begin with the appearance of thickening of the upper lip, a drooping of the eyelids, and either increased vivacity or a stupid spell.

Sensory aberrations are common, such as blunted sensations, or their entire absence, or the reverse, too great or acute sensibility. Thus there is hysterical blindness or increased eyesight ability; color blindness in various degrees, or unusual sensitiveness to colors; deafness or greater acuteness of hearing; and the senses of taste, touch, or smell may be similarly affected, obliterated, or augmented, sometimes to a painful degree,—the hyperæsthesia of sensibility. There may be extreme tenderness of parts of the body, as when pressure is applied over portions of the spine, usually between the shoulder blades and in the "small of the back," or, akin to blindness, deafness, etc., there may be loss of sensation (anæsthesia) in one half of the body. This hemianæsthesia is quite characteristic of hysteria, and may include the loss of sight of one eye, or the hearing of an ear. Taste and smell may also be absent upon one side of the tongue or in one nostril.

The faculty of speech may be lost for shorter or longer periods,—hysterical dumbness or aphonia. Pains in the joints, back, breast, bowels, or in the top, front, or back of the head, are usual. The hysterical headache, as though the portion of the brain were squeezed, is called *clavus*. In addition to extreme sensitiveness in the kidneys, bladder or uterus, the ovaries are the most common seat of hyperæsthesia, the left ovary oftener than the right. In the days of witchcraft many a hysterical woman was condemned to death through the superstition that the devil caused her troubles, particularly the loss of sensation; and, on the other hand, in olden times both paranoiacs and the hysterical were occasionally canonized as saints when religious ecstacies and exaltations were among their symptoms. Sensational starving periods are often undertaken by hysterical women who enjoy the notoriety thus gained among the credulous. Food is usually secretly secured by them in some way. Perverted appetites, as for paper, slate pencils, chalk, coal, or disgusting substances, have been mentioned in the oldest medical records and down to the present. A few swallow hairs, thread, or even pins and needles; but those who delight in astonishing others with the

enormous number of needles that pass from the skin are guilty of thrusting them into places, such as the vagina, and elsewhere, themselves; the needles will be found with their heads outward.

After a family has had an agonizing time with an hysterical female, expecting her to die every moment in her violent convulsions, requiring sometimes a half dozen to hold her down; and an entire household has been fatigued to the limit of endurance,—it is astonishing how completely and perfectly the patient reacts from her attacks, and is the only one of the parties concerned who is fresh, smiling, and unconcerned, as though nothing had been the matter.

Illusions or misinterpretations of sight or sounds are frequent in hysteria, and sometimes hallucinations are present, so that accounts by a hysterical person of what she has seen or heard must be accepted with great caution, as they may be purely imaginary. Occasionally the whining, sympathy-seeking voice of the hysterical female helps the physician to a diagnosis. In "camp-meetings," boarding schools, and wherever the emotions are cultivated and worked upon, rather than the reasoning faculties, hysterical outbreaks may be epidemic; and in Europe entire communities have suffered from religious or political hysteria. In hospitals or private practice, experienced physicians terminate some hysterical disorders by sudden douchings with cold water, inhalation of nitrate of amyl, or ammonia, which suffuses the head with blood, or by threats of hot iron burnings, usually on the back. Convulsions, choreiform movements, paralytic troubles, screamings, mimicry of diseases, of hysterical nature or origin, are often thus swiftly ended. Women have been known to be hysterically paralyzed for years, and to recover suddenly when frightened. One who had been bedridden was to have prayers offered for her recovery in church, and promptly at the time set for the prayers she arose, dressed herself, and appeared at the church, "cured," to learn that by an oversight the prayers had not been made. Charlatanism finds its easiest subjects among the hysterical; and hypnotists, "Christian scientists," "metaphysicians," and fakir practitioners generally, readily secure reputations for performing miracles, among such afflicted persons and their ignorant friends

Notwithstanding that much of the hysterical disorder is imaginary, it is a serious debasement of the nervous system, and may result eventually in organic disease or even death.

Hysteria may be caused by definite injuries to the nervous system, although the cause is sometimes not apparent. Heredity is potent in most instances. A clearer understanding of the disease by the people is prevented by the fact that hysteria may be both a trivial and a serious disorder in different patients, and sometimes in the same person, depending upon the nature of the treatment. Each case requires separate consideration and the advice of experienced and honest practitioners. Sometimes humbuggery will do more for the hysterical than appeals to reason. It is told of a young woman who had been for years unable to leave her bed because of hysterical paralysis, that her father consulted an educated, reliable physician concerning her case, and was advised by him to send for a long-haired quack who called himself an "Indian doctor." This fraud pretended to have extracted from her throat a small bird, which, flying through the window, carried off her disease. She was free from hysteria for several years and until her father injudiciously told her of the ruse, when she immediately took to her bed and soon afterward died.

Hysterical deafness may be ended when the patient strains her attention, suspecting that something is being said about her. Hysterical blindness may disappear sometimes when most convenient for the patient to be able to see. A young lady of twenty has for some years been occasionally sightless, but during the World's Fair she suddenly regained vision long enough to enjoy an exploration of the exhibition, and then relapsed into blindness again.

The seeming "prankiness" of hysteria in most of its symptoms may often lead to improper estrangement of sympathy; or its seeming severity, at times, causes overanxiety and improper treatment, which too often foster the disorder.

It has been found best to seem to overlook what a hysterical person does, to throw her as much as possible upon her own resources for help and recovery, and yet, without her knowledge, to keep a careful watch that such neglect is not carried too far. Too much nursing and too many attendants, and especially prompt yielding to all her whims and caprices, are more mischievous than absolute neglect, the semblance of which has frequently cured such cases permanently, or for the time, at least.

But it should be remembered that almost the entire range of

diseases that afflict humanity, diseases of the mind as well as the body, may, in females especially, be complicated by hysteria; and while hysteria may resemble many serious complaints and create mistakes in diagnosis, the serious complaint itself may really be present, and accompanied by hysteria.

Hysterical cases too often find relief from morphine, stimulants, or hypnotics generally, and there is great danger in substituting a drug addiction for the hysteria.

The hysterical female may burst into continued laughter over a piece of bad news, or may weep and wring her hands when told of something particularly pleasant; and a calamity may produce apparent indifference on the part of the patient, both in her manner and conversation, as though burglaries, loss of fortune, etc., were ordinary affairs. Fits of laughing and crying may be combined, or alternate rapidly; and during convulsions there may be screaming or silence, ejaculations, or even sentences may be spoken.

Children at all ages, and girls at puberty, are occasionally attacked with hysteria; though the most frequent age is from puberty to thirty. Women at the climacteric period, and rarely men, give way to hysteria in some form. During the course of and in convalescence from debilitating sickness and after an accident or while intoxicated, men are as liable as women to exhibit petulance, emotionalism, tearfulness, and other minor phases of hysteria.

While pampered and indulged females are more liable to suffer from hysterical attacks, the hysterical disposition is by no means confined to the well-to-do classes. Privations, doubtless, do much toward checking such exhibitions, but the hysterical nature often rises superior to mere surroundings; and there is no one type of humanity more liable to "the vapors," as hysteria was called in old times, than another. "Hysteria major" is a name Charcot used to distinguish the more violent attacks of hysteria (or what has often been called hystero-epilepsy) from hysteria minor.

Mental hysteria may exist in varying degrees in connection with, or without, the sensory or motor accompaniments of hysteria major or minor. Separately or together the mind, the senses, or the entire body, may be hysterically deranged, in the same or

different hysterical persons, from almost imperceptible to obtrusive departures from healthy states.

The hysterical mental disposition is, in some cases, the chief or only symptom of this "grand neurosis." Its predominant peculiarity is excessive psychical reaction, an exaggeration of character, in one or more ways. While general nervous instability is the basis of mental hysteria, certain conduct often results therefrom and may be persisted in indefinitely; and the hysterical appear to glory in surprises and accomplishing the unexpected. Their ambition is to be talked about.

Extreme amiability, loveableness, and childlike dependence is one extreme of the hysterical character, quite as often exhibited as the opposites,—disagreeableness, spitefulness, and defiance. Charcot considered the mental traits of these patients to be due to the degeneracy which originated the nervous trouble; but as these traits are peculiar to hysteria they may be properly studied under that head, even though the physical symptoms of that derangement are absent. In that respect mental hysteria may be compared to mental epilepsy, which may exist with or without the grosser bodily manifestations, such as convulsions; and, as in epilepsy, the mental disturbances may precede, follow, interlude, or take the place of convulsions.

As a rule which is far from being invariable, the smaller and more delicate hysterical women find outlet for their disorder in securing attention through an air of resignation, mild hints and pleadings, insinuating manners, or adroitness generally; while the more robust, and especially the less cultured, too often appear as the Jezebels and Xantippes, the viragos, vixens, and scolds, who in old colonial days were publicly ducked and otherwise legally disgraced, or burnt or drowned as witches.

Both boys and girls about the period of puberty, or sometimes earlier, temporarily develop hysterical emotionalism and an inclination to sensational lying, which is usually misunderstood, and fostered by petting or corrected by flogging.

Education or the possession of sufficient intellect does much to antagonize mental hysteria, and the craving for notoriety, characteristic of hysteria in all its forms, among the better informed, finds congenial fields in public philanthropy, the stage, lecturing, etc.; but "reform" undertakings are apt to be superficially, and often absurdly, managed by the hysterical.

When physical and mental hysteria are combined, the most incredible perversity is sometimes manifested. Patients may abstain from food, or pretend to do so, for weeks; and they sometimes sleep continually for longer or shorter periods, but taking food when aroused; or they may pretend that for months no urine has passed, and they have actually been caught secretly passing their urine into their hands and drinking it, to deceive those about them.

Such patients occasionally take violent and unreasonable prejudices against friends or relations, particularly the husband; and they are disposed to form improper attachments, especially to those who pander to their caprices, consequently they are very susceptible to undue influence.

Hallucinations and illusions are common, and much of the sensational lying accredited to hysterical patients is due to the fact that subjective sensations of the kind are accepted by them as real.

Religious enthusiasm may give special direction to hysteria, and cataleptics and ecstatics are found, especially among the French. Among the latter are the "miracle-working," vision-seeing hysterical.[1]

French hypnotic clinicians exhibit females of this kind who are easily influenced by suggestions, and who pass readily into and out of the cataleptic or ecstatic states.

Most mental hysterical cases are impressionable, and live in the superlative degree. The more harmless sort may explode their exaggerated feelings in mere "gush," of the insincerity of which they are conscious. But it would be an error to suppose that every hysterical woman will lie intentionally, though their love of attracting attention tempts all of them to untruthfulness, regardless of consequences to themselves or others. They are fond of excitement, of brilliant and extraordinary things; often they are irritable; and capriciousness is common among them. Their speech is at times rapid and tremulous, and volubility may alternate with reticence, or either disposition may persist. Though timid and easily frightened, they will commit the most outrageous offenses, like blackmail, libel, and mischief-making gener-

[1] Hammond, Diseases of the Nervous System, 775.

ally. Some of their plots are skilfully carried out and deceive, for the time at least, entire communities. They often like to appear persecuted, and during the prostration that they bring upon themselves there may be delirium with confusion of thoughts, silly utterances, the usual heart rapidity, faintings, and, maybe, convulsions; all of which evoke sympathy from uninformed friends whose indignation against the patient's imaginary persecutors is aroused to the pitch of lynching. I knew a hysterical woman whose maternal feelings were so perverted that she gave her blind son a bottle of morphine and advised him to commit suicide, as he had nothing to live for, and he followed her advice.

Lyssaphobia, or the pretense of hydrophobia, occurs among the hysterical and weak-minded, occasionally; and the ignorant are readily imposed upon by the barkings, snappings, convulsions, aversions to water, and such other absurd acts as the degenerate imagines constitute symptoms of hydrophobia.

Selfish egotism is characteristic of all classes of hysterical cases; and while some are content with wearing out a household who waited upon them, others go further and are satisfied only with newspaper or national notoriety.

Absence of will power to curb their foolish, and often harmful, traits may be united to a morbid insistence upon some mischievous work. Simulation and lying may be carried to the extent of demonstrations of apparent lack of moral sense. For the purpose of carrying out some design they may confess crimes which they have not committed, or even do criminal things to attract attention to themselves and enable them to confess. Anything that can be tortured into an appearance of evil doing by others, or, sometimes, by themselves, is readily seized upon, enlarged, amplified, and plausibly explained, until nearly everyone is convinced of their truthfulness.

I knew a lady at Evanston, Illinois, whom I had placed in a private sanitarium in Wisconsin, and who wrote anonymous letters to her neighbors detailing baseless scandals, until several divorce suits were imminent. She finally alienated all her friends by her open and covert gossip, and at last her father was the only one who did not think she was malicious or insane; her husband had come in for his share of suspicion and scandal. When

eventually her father was also made to suffer from her lies, there was general agreement that she should be isolated as too dangerous to be kept at home where she could send letters away.

If such patients have been sinned against, they are apt to make the most of it; but oftener their mischief-making is pure fabrication, so far as the occasion for it may appear. Females of this character have been made tools of by designing persons to injure others, but they are unsafe for such purposes, owing to their liability to confess to the plot and turn against their co-plotters; but even in this they may not readily be believed. Carelessness of the feelings of others is occasionally shown by them in uncalled-for criticism, the divulging of secrets, or even in deadly insults to their best friends. They may even mutilate themselves in order that others may be blamed for it, and they have been known, while making feints at suicide, to kill themselves, usually in such a way as to secure widespread comment, and sometimes so as to cause innocent persons to be directly or indirectly held accountable for the death.

Dentists, and sometimes physicians or surgeons, have been made the victims of scandalous charges by hysterical women. Anæsthetics of various kinds are known to produce sexual hallucinations, and inasmuch as the hysterical are inclined, all too often, to make false accusations of rape or attempted assaults, the chloroform or ether mental suggestion is readily seized upon. A patient of this kind, to her dying day, accused her sister, husband, and family physician, of standing by indifferently and allowing a dentist to ravish her when under the influence of an anæsthetic while a tooth was extracted.

Dentists of twenty years ago, before this matter was so well understood, were sentenced occasionally to life imprisonment on charges of this kind. A noted case of the kind occurred in Boston, and another in Philadelphia. The latter dentist was convicted through a microscopical examination, ignorantly made, and died in prison. Formad, the Philadelphia pathologist, exhibited some microscopic slides to a physician, and among them were preparations of spermatozoa. The physician realized for the first time that he had mistaken adventitious ciliated bodies, found in the vagina, for spermatozoa, and the fact preyed upon his mind until it led to his suicide. He had ignorantly sworn the dentist to his conviction and death.

The habit of writing letters, anonymous and otherwise, of some hysterical females should be fully recognized by both lawyers and physicians, as great wrongs have been perpetrated in this way, by these malevolents.

A young lady in Peoria, Illinois, was in receipt of abusive and indecent letters from various parts of the country. Her relatives and friends were wrought up to dangerous wrath against her unknown persecutors. Several suspected persons were arrested, among them a cousin of the persecuted female, and there was talk of lynching him. After a batch of communications, more repulsive than ever, came to hand, accusing her of foul and impossible crimes, she took a horse and buggy, drove to one of the principal hotels, and standing up in the vehicle, dramatically shot and killed herself. Government postoffice officials succeeded in proving beyond a doubt that the girl had written all the letters herself.

A young lady, a school teacher, created extensive excitement and interest for a year or two in a western state by the charge that after school had been dismissed and she thought herself alone in an unfrequented part of the country, she had been outraged by three or four young men. A great many arrests were made, but she failed to identify the men brought to her; several were kept in jail for months, and finally two were hanged by a mob. Her hysterical convulsions were ascribed to the indignities she had suffered, and she finally died. The newspapers of the period were filled with sensational stories which would undoubtedly feed a hysterical disposition. The truth in such a case is hard to determine, as the shock of an actual occurrence of the kind might cause hysteria, or all her stories might have been based upon delusions and hallucinations, or they might have been inventions of a hysterical imagination, or simple conscious lies for the effect produced.

Young girls have been known to break windows, write letters abusing themselves, and tax the watchfulness of friends to discover the guilty person.

An Iowa lady pretended to be sick, and while alone upset her chairs and tables and strewed the contents of the bureau drawers and trunks about her house. The sheriff investigated the singular "burglary," and with the aid of physicians traced the confu-

sion to its hysterical cause. She had made grave charges against a gentleman friend of her husband.

Pubescent nurse girls have tortured and killed infants, and hysterical servants have poisoned entire families, or attempted to do so. A peculiarity of such culprits is their liability to confess to what they have done. Destructiveness alone may afford vent for hysterical outbreaks in some instances.

It is remarkable how often hysterical women secure good husbands; and if a cause does not exist for a divorce many hysterical married women exaggerate little shortcomings, distort others, or wholly invent reasons for seeking separation; and the more publicity and scandal there are in such proceedings the better they are pleased. But, of course, it often happens, as well, that the husband is at fault; and even a hysterical woman may be abused and may not court notoriety. The hysterical mental condition, however, seems to impel many to ventilate their real or fancied grievances in public, and often to write up their own cases for sensational newspapers.

Hysterical women are so well known to physicians as dangerous characters that they are dreaded as visitors to doctors' offices, and precautions against complications with them are taken by the better informed.

Discipline is the time-honored treatment for all cases of hysteria; firmness with kindness; "the iron hand in the velvet glove."

Many of the perverted mental states just described under mental hysteria border closely upon, if they do not really constitute, insanity; and the matter of responsibility needs careful thought in such cases. Punishment improves some, while it fails with others, and if any conclusion at all can be reached, as to the accountability of such degenerates for what they may do, it should be through individualizing and studying each instance apart from, as well as in connection with, all others of the kind.

Temporary hysterical insanity, with delusions of fear that people intend to kill the sufferer, or have her arrested, etc., occasionally appears after a shock or fright, or in the course of ordinary hysteria. Mania and melancholia may be so complicated with hysteria as to defy determination whether the hysteria or the vesania predominates.

Hysterical insanity, proper, is an exaggeration of the hysteri-

cal character, to the point, very often, of extreme offensiveness. Lies are told brazenly, and without particular purpose; and either eroticism to nymphomania, or a decided aversion to anything relating to the sexual act,—one extreme or the other,—is observed. The patient may maintain obstinate silence or be volubly abusive, usually the latter, and no asylum patient can be fouler in language than the obscene, vituperative, hysterical insane woman, without regard to previous training, education, or surroundings. Husband and relatives generally are despised and roundly blackguarded, and all sorts of false accusations are made against friends and relations by these patients. They are particularly fond of accusing men of rape, and in poorhouses and asylums have occasionally brought about investigations of their charges.

Illusions are frequent, such as mistaking one person for another. Their hallucinations of sight are quite fantastic. One hysterically insane climacteric patient raved about her husband repeatedly holding intercourse with other women before her eyes; and the delusions of some are almost wholly with reference to jealousy of their husbands. Whatever delusions they have are usually fixed, or persist, and, as in paranoia, they are logically arranged, systematized, and argued upon and about, with reference to actual occurrences, unlike the changing delusions of simple mania or melancholia.

A theatrical affectation of amiability may alternate with cunning attempts to escape, to send notes to strange men, or to destroy furniture or clothing, or even to make murderous attacks. Not only is the language filthy, but the actions are frequently disgusting.

Cessation of the menses during the insanity is the rule, and it is folly to attempt to restore the menses in the expectation of curing the disorder, for the amenorrhœa is a mere symptom among many other symptoms.

Temporary recoveries may occur, with recurrences and complete deterioration; but I have known of full recoveries after a year of hysterical insanity.

Such patients should be isolated from their relatives and surrounded by women, particularly if sexual ideas pervade their delusions. The presence of men is apt to act harmfully upon them. In the early stages of the insanity, change of scene or travel may

be of benefit, but when the insanity is fully developed, confinement and strict, but kind, discipline are most likely to effect a cure.

The memory is not usually impaired in hysterical states, unless there is an epileptic complication. During hysterical fainting attacks there may be unconsciousness, but, as in hysterical deafness or blindness, the patient sometimes unexpectedly indicates that she has heard and seen when supposed not able to do so. The rule that in epilepsy there is loss of consciousness, and in hysteria there is not, and that events occurring at the time are remembered, is an important means of differential diagnosis.

Clouston estimates hysterical insanity at about one per cent of his cases. Probably not one in five hundred hysterical women become so insane as to need asylum care, but no hysterical patient is well balanced mentally.

CHAPTER XXIV.

EPILEPSY.

Epilepsy is divisible into major or severe, and minor, or slight, attacks, with every intermediate degree between rapid succession of "*grand*" or "*haut mal*" paroxysms, of such severity that death may result, to *petit mal* faintness or dizziness, in which there is commonly a brief loss of consciousness without spasm, or with slight spasm, and, very rarely, slight spasm without loss of consciousness. In the lesser seizures the patient may or may not fall, but he invariably falls in the major attacks. A warning or "aura" usually precedes loss of consciousness and the spasm, but at times the latter may appear suddenly and without the warning.

Major epilepsy may be preceded in some patients, hours or days before a convulsion, by precursory symptoms, warning the patient and others that an attack is impending. These may be sudden jerkings, or twitchings of the arms or legs, with a tendency to fall or to drop whatever is held; a constant dizziness or difficulty in breathing, an unnatural appetite, a pain in the head, flashes of light or colors; or there may be an altered mental state, as irritability. Less frequently the patient may be forced to run ("*epilepsia cursiva*"), or to turn about and walk in a direction opposite to that in which he was going. The face often turns pale, but not always, as at the onset there may be flushing, and afterwards pallor.

The aura, or immediate warning, or subjective commencement, varies in duration; occasionally it lasts a few minutes, during which there is time to take precautions, such as lying down or otherwise avoiding injury; or it may be but the fraction of a second; or it may be absent altogether. The most frequent warning is a feeling as of a cold wave passing upward from the stomach; and probably next in frequency is a sensation rising from the arms. One lady described her aura as a feeling that "the flesh of the arms was dropping off the bones." For many centuries it was customary to attempt to arrest the fit by a ligature around the arm from which the warning arose; and sometimes this was suc-

cessful, whether the epilepsy were due to brain tumor or to an unknown cause. Consciousness of a sensation, or of a motion, or a mental state, constitutes the different kinds of warnings. Numbness, tingling, and visible twists and jerks of parts of the body, are instances.

About half the cases of epilepsy major are attended with an aura; and any portion of the body may be the seat of the feeling, which may affect but one side of the tongue, face, trunk, or one arm, or leg; or it may occur in both legs or arms, or it may be a feeling of indisposition, faintness, trembling, or apprehension, choking, breathlessness, nausea; or head or heart sensations, an emotion or idea, a feeling of fright; or visions, or a sense of strangeness, in which familiar objects suddenly seem unfamiliar. The special senses of smell, taste, sight, or hearing, may be affected in the warnings, as with stenches, a metallic taste, double vision, blindness, or distinct visions of lights, colors, stars, persons, animals, old familiar scenes, beautiful places, or large rooms. A sudden stillness or deafness may precede an attack, or whizzing, rushing, whistling, crashing, or musical sounds may be heard.

The epileptic cry, shriek, or scream, characterizes probably a third of the cases, and is seldom remembered by the sufferer. Loss of consciousness is invariable when the fits are severe and occasion the fall of the patient, which may be backward, forward, or headlong, regardless of place, as into the fire, down a stairway, from heights, in a crowded street or congregation, or when alone. The hysterical person usually selects the place and surroundings for her convulsions; but, except in the rare instances when the warning is long enough to enable the epileptic to seek a safe place in which to lie down, the latter may fall anywhere and upon any occasion.

The convulsion is first tonic, or rigid, usually with a turning of the head and eyes to one side. Sometimes the patient turns and spins around once, twice, or three times before falling. The mouth is twisted to one side, the arms and wrists flexed, and the thumbs drawn into the palms, but the fingers are often stiffened at an angle with the hand. The legs are extended and the feet turned in, and usually both sides of the body are affected simultaneously. But occasionally the head is bent forward, if the attack begins while the patient is erect. Rarely the arms are

raised and held forwards, and the head may be bent back. The trunk muscles are also involved, the chest and abdomen being rigid; the jaw is stiff, and twisted to one side. From a second to a few minutes after the tonic spasm begins, the clonic spasm appears gradually; the body vibrates until it bumps up and down regularly, but at slower intervals; the jerks of the arms, legs, and body appear at longer intervals, with longer periods of relaxation. In this stage the tongue is often bitten and the frothing at the mouth is colored with blood.

Variations from this usual order may be observed in a single tonic spasm for a few moments, when the patient feels all right again. The tonic stage may be very long and the clonic short, or the clonic may last from the first throughout the entire fit; or a localized attack may alternate both clonic and tonic spasms; and, when a single limb is affected, consciousness is not often lost. A fit may begin in one member or part of the body, and extend gradually to the entire person.

While oscillations of the pupillary sizes may be seen in a few cases after attacks, the most usual condition of the pupils is a dilated one; and extreme mobility of the pupils may characterize the epileptic patient at all times, but probably the most common state is one of extreme dilation, although this may exist in other diseases than epilepsy. In agitated melancholia or simple anæmia it may be as extreme. The bowels and bladder control may be relaxed during a fit, and urine and feces pass involuntarily. The pulse becomes rapid, sometimes from 120 to 140 beats per minute, lessening as the convulsions subside. Pallor of the face usually begins and may persist during the tonic convulsions, and in rare cases it is preceded by flushing; but in either case the face becomes congested in a little while, and is finally bluish, and a profuse perspiration may follow.

The inhalation of nitrite of amyl or ammonia may arrest attacks before the spasm has begun, but rarely later. Some patients grasp the arm, or by pressure upon the part of the person whence the warning arises, or by running about, putting water on the head, or by other means they have found effective, they may succeed in arresting the fit in its earlier stages.

Sleep follows, as a rule, upon the subsidence of the convulsions; and from this epileptics should not be aroused, as they are

apt to exhibit irritability and complain of suffering from headaches. The sleep lasts from ten minutes to many hours. Both sleep and headache are absent in some cases,—an important diagnostic fact noted by all modern authors.

Motor weakness of the entire body may last for a day or two, or it may be restricted to one part, usually the limbs in which the spasm began. Tickling the soles of the feet does not induce reflex motions for a few minutes after a severe attack.

Speech may be impaired for awhile, or there may be a transient paralysis of half of the body. In children, epilepsy may be associated with imperfect development and paralysis of one side, known as spastic hemiplegia of infancy.

The temperature may be slightly raised, but after a succession of attacks during short intervals the heat may be raised several degrees. Blood vesssels may be ruptured in the brain during a fit, and capillary extravasations are sometimes apparent in the bloodshot eyes; and small spots, called "petechial," may be noticed here and there on the person of an epileptic, due to small areas of capillary bursting. Vomiting does not occur often, but is dangerous because the food is liable to be thrown into the glottis and cause suffocation. Excessive hunger has followed attacks, especially in the young. A succession of severe attacks lessens the weight of the body, but ordinarily the weight is not reduced.

Minor epilepsy may occur with or without major epileptic attacks; or a patient with convulsions may not be aware of *petit mal* occasions; and severe fits may be at long intervals, or may be entirely absent in the case of one who suffers from minor epilepsy; and, further, *haut* or *grand mal*, as the severe spasms are called, may alternate with *petit mal*, one or the other taking place more frequently. Patients speak of such minor attacks as sensations, faints, losses, turns, giddiness, spells, seizures, and frequently they are not aware of having had an attack. For that matter, I have known epileptics to be unaware of a severe spasm, or to infer it only by finding themselves in certain positions, or from the odor of the nitrite of amyl which had been used to prevent an attack.

Sometimes a warning precedes *petit mal*, but usually there is sudden paleness, and momentary loss of consciousness, with

dilation of the pupils, and the attack is over. Pallor does not always occur, and no change in the complexion may be noticed, unless there is a little whiteness of the lips and about the mouth; and occasionally, as the *petit mal* ends, the face may flush. Whatever is in the hand may be dropped; or the patient may walk past a place where he intended to stop, and only be able to account for so doing by supposing that he has had an attack. A sentence may be broken off while speaking, to be finished when the *petit mal* passes. Automatic acts may also be performed at such times; one patient mentioned in Gowers' would turn half around, recover himself, and begin muttering and pulling objects off the table for a few moments, and then was better. In another case, any object at which the patient was looking seemed to move to the right, and she tried to follow it, looking more and more to the right until she was turned half round. Visual disturbances are common, auditory next frequent, and olfactory least frequent of all.

The stomach sensation, or aura, is felt by some minor epileptics; others feel a throat or heart sensation, or sense of debility; and a few scream at the beginning and a few times during the attack. Urine may be passed involuntarily, and some experience starts or jerks, with or without loss of consciousness, but these latter appear like the abortive epilepsies experienced by most of the sufferers. A step or two backwards, a drawing of the face on one side, mumbling, sudden rigidity, or inability to move a part of the body, may separately characterize an attack of *petit mal*. One patient would exclaim and act as if terrified. Different sensations may be experienced by the same patient at different times. Consciousness may be obscured for a few moments after a minor fit, but usually recovery is speedy. Those who remain dazed and stupid answer questions with difficulty, and occasionally fall asleep, or, as sometimes occurs in major epilepsy, automatic mental states may follow, or there may be hysteria-like convulsions.

Many epileptics appear to be in good health during the intervals of their paroxysms. Digestion, however, is frequently deranged; the bowels are constipated; appetite is bad; and the

[1] Epilepsy and Chronic Convulsive Diseases, 92.

tongue is furred. Some have voracious appetites, and the bromides taken impair the health, or may cause the eruptions seen on their faces, and the appearance of stupidity. The circulation usually is not good; the pulse may be small, frequent, or irregular, with occasional rapid heart action. It is of great medico-legal importance to note that while epilepsy, of greater or less severity, may not disturb the mind, there is often observed among epileptics a lessened self-control, a grossness of both body and mind, weakness of memory, blunted sensations, and disinclination, if not disability, to follow some former occupation. A certain lividity of the skin may also be present.

The interval between the first and second fit varies from a few days to over five years, and thereafter the attacks may occur daily or yearly, sometimes in isolated or grouped seizures. In the *status epilepticus* the intervals become shorter, the coma deepens, consciousness is not regained, the pulse increases, and the temperature rises, 104°, to even 107° in fatal cases. This state, however, is not frequent, in or out of asylums for insane. Minor attacks may occur daily, monthly, or less frequently. Convulsions may be either diurnal or nocturnal, or may take place both by day and night. In about half the female cases, attacks appear to be related to menstruation, and in others they are just before that period or without regard thereto.

Female epileptics slightly outnumber male epileptics. Hereditary influences, especially maternal, are traced in about one third of the cases, with a tendency from father to son, and from mother to daughter; and epilepsy in the direct or the collateral line is often found among transmitted cases; insanity, chorea, paralysis, indicating the nervous instability of progenitors in other cases. Sometimes a great many epileptics will be found in one family. Syphilis, occasionally, is a direct cause.

Epilepsy most frequently develops between the ages of ten and twenty, though it has appeared at any time from the first to the seventy-first year. Among exciting causes are recorded fright, excitement, anxiety, puberty, sickness of various kinds, particularly scarlet fever and measles; blows or falls on the head, overheating, intestinal worms, chronic alcoholism, lead poisoning, kidney disease, pregnancy, masturbation, etc. Ordinarily fits occur, in those who are subject to them, without apparent excita-

tion; but, in a few, a meal may bring on an attack; sudden noises or brilliant lights, or certain movements of the body may occasion a paroxysm; and many are susceptible to certain articles of diet.

Indiscriminate falling renders these patients liable to a great many accidents. They may be run over in the street or in getting on or off cars. Epileptic sailors have been known to fall from masts, and masons from high buildings. Notwithstanding their knowledge of what may occur, epileptics constantly take risks realizing that they are risks. In homes for epileptics, dormitories are better than separate rooms, as a convulsion may be instantly observed by night attendants, whereas death may occur in seclusion, and not be known until morning. Patients have turned upon their faces and smothered themselves with pillows during unconsciousness. Some have such a propensity for hurting their heads that turbans must be used to protect them. Epileptic sallowness of complexion and "jail pallor" should be determined apart where they have any bearing upon diagnosis. They may also coexist.

Mental epilepsy. Gowers[1] states that "after epileptic fits of moderate severity the patient may pass into a condition of mental automatism, in which various acts are performed in an apparently unconscious manner, but of which no recollection is afterwards retained. In other cases a patient, after recovering from the epileptic fit, passes into a state of hysteroid convulsion. Both these post-epileptic conditions are severe, and they are more common after slight attacks." "The automatic action," says the same author,[2] "is often regarded as constituting the epileptic seizure, and the attacks presenting this feature have, following Esquirol, been called 'masked epilepsy,' or 'epilepsia larvata,' after Morel. Whether this mental automatism may replace and represent an epileptic seizure, or whether it is always a post-epileptic phenomenon, is a question still undecided, which will be presently considered. It is certain, however, that the automatic state often succeeds an attack, and is then essentially a post-epileptic phenomenon. According to an hypothesis suggested by Anstie and Thompson-Dickson, and applied by Hughlings Jackson, it is the result of the exhaustion of the cerebral centres by

[1] Op. cit., 86.
[2] Op. cit., 95 *et seq.*

the discharge, and the consequent temporary loss of control which these should exercise over complex centres just below them, which consequently act in an insubordinate and automatic manner.

"These automatic actions are not merely of clinical interest, but are of practical importance on account of their medico-legal aspect, since they are sometimes complex and have the aspect of voluntary actions. It is, indeed, often not easy to convince observers that these actions are not deliberately volitional and intentional, so apparently conscious are the patients; but consciousness is in an abnormal state, for the memory retains no recollection of these actions.

"In the simplest form, a patient, after an attack, seems dull and stupid for a moment, and then proceeds to perform some inapposite action in a dreamy manner. A very common action is that of undressing, and it occasionally has serious practical inconveniences. One of my patients, for instance, was in the habit of giving lessons in music, and had to relinquish his occupation because, while giving a lesson to a young lady, after an attack so slight as to be unnoticed by his pupil, he suddenly began to take off his clothes. The act of undressing is perhaps the result of a sensation of illness, which suggests going to bed. Another occasional action, which may be the result of the same suggestion, is an attempt to walk up a flight of stairs which the patient thinks is before him. Thus, one man, who had his fit in the kitchen, thought that the shelves of a dresser were stairs, and tried to walk up them. Another patient had a slight fit at dinner, and immediately stepped on to the table, and made movements as if going up stairs. Usually, as in this instance, the action is a simple and natural one, only rendered equivocal by the surrounding circumstances. Another similar action is to put into the pocket any object that may be near, irrespective of its ownership. A young man who presented this symptom was a draper's assistant. He had minor attacks which consisted only in brief loss of consciousness, preceded by an olfactory aura—a 'nasty, indescribable smell in his nose and mouth, a sort of combination of smell and taste.' After the attacks he constantly found in his pocket any object which had been near him when the attack came on, such as scissors, reels of cotton, etc. This patient had always a sensation of hunger after the attacks, and he occasionally only discovered that

he had had a seizure by finding, to his surprise, that he was cutting bread and butter and eating as fast as he could. It is a very common thing for patients in the hospitals, after slight attacks, during the automatic state, to go to other patients' lockers, take things out, and put them in their own pockets. One woman, whose general conduct suggested no suspicion of dishonesty, after an attack went to the locker of another patient, took out a purse, and pocketed it.

"Occasionally the actions performed are extremely complex. I have known, for instance, a carman, after an attack, to drive through the most crowded parts of London for an hour without an accident, and retain no recollection of it afterwards. I have even heard (from Dr. Radcliffe) of a young lady playing, during this state, the most difficult music without mistake. Trousseau relates the case of an architect who, when seized on a scaffold, would run quickly from plank to plank for a few seconds shouting out his own name. He never fell. The state is no doubt closely allied to the condition in somnambulism, in which the precision of muscular action is well known.

"Occasionally the automatic actions display emotion, and may be violence and rage. It is probable that most cases of epileptic paroxysmal mania are really examples of post-epileptic automatism. One of my patients, immediately after an attack, struck a friend who was with him a violent blow on the face, mistaking him for another person, and was in consequence taken to a police station under the suspicion of being drunk. Another patient, immediately after a fit, threw her baby down stairs. Without doubt, many crimes have been committed in this state. The possible relation of criminal actions to epilepsy has formed medico-legal questions at many criminal trials.

"The emotions displayed are sometimes of a more cheerful character. One patient always laughed and sang for a few minutes after every attack of *petit mal;* and in another, a girl of twenty, each slight seizure was followed by a paroxysm of kissing; she would kiss every person near her, irrespective of sex, and even seize her pillow and kiss it most affectionately.

"In some cases there is considerable uniformity in the character of the actions which are performed in this post-epileptic state. A woman, for instance, aged forty-five, had been the subject of

epilepsy since six years old; severe attacks, consisting of the epigastric sensation and loss of consciousness, much more frequently. From the first, after both kinds of fits, she commonly tore her hair. When quite a little girl she was found unconscious in a room by herself, and had torn a quantity of hair out of her head.

"*Epileptic insanity; paroxysmal mental disturbances; epileptic mania.* The subjects of epilepsy sometimes, but rarely, present sudden paroxysmal outbursts of mental derangement, often with violence and a tendency to injure others. The maniacal attack is usually brief, often lasting for a few minutes only, sometimes for an hour or two. It was formerly thought that such outbreaks represented and constituted an attack of epilepsy. In the majority of cases, however, it is certain that, as Hughlings Jackson[1] maintains, the mental derangement is the sequel to a fit, and is really a form of automatic action which may succeed an attack, sometimes severe, much more commonly slight.

"If the preceding attack is very slight, it may readily be overlooked, and hence the physical disturbance may be regarded as primary. Whether this is true in all instances of maniacal outbursts in connection with epilepsy is doubtful. In rare cases (as Esquirol and other good observers have pointed out) the act of violence precedes the fit. We have seen, in the account of modes of onset, that the aura of an attack may sometimes consist in complex or co-ordinated mental processes, or a visual idea. There is nothing inconsistent with ascertained facts in a sudden act of violence as the result of the initial discharge. One of my patients always hopped around the room before he fell in a fit. Cases in which a patient suddenly runs, or turns around and walks backwards, before a fit, have been mentioned, and a similar cerebral process to that which causes such a proceeding may declare itself in an act of violence. It thus seems possible that a maniacal outburst may be the only effect of a 'discharge' and may alone constitute an attack. Such cases are certainly rare, but it is doubtful whether we are justified in denying their occurrence.

"Occasionally, after a fit, or, more frequently, after a series of fits, an attack of mental disturbances may come on which lasts for several days. It may be simply a demented state, or there

[1] Med. Press and Circular, Nov. 11, 1874, p. 409.

may be hallucinations, with irritability and even violence. In the latter cases, according to Voisin, there may be an elevation of temperature to 102° or 104°. This state sometimes comes on in epileptic patients without immediate association with attacks, and even during the temporary cessation of attacks. It is not uncommon for a patient's mental state to be worse, his temper more irritable, during the temporary cessation of severe fits, and this apart from the occurrence of slighter seizures; and in rare cases the disturbance amounts to actual mental aberration.

"*Interparoxysmal mental state.* The mental state of epileptics, as is well known, frequently presents deterioration, and this constitutes one of the consequences of the disease which is much dreaded, and is often most serious. In its slighter form there is merely defective memory, especially for recent acquisitions. In the more severe degree there is greater imperfection of intellectual power, weakening of the capacity for attention, and often defective moral control. Mischievous restlessness and irritability in childhood may develop to vicious and even criminal tendencies in adult life. Every grade of intellectual defect may be met with, down to actual imbecility.

"The mental state must not be regarded, in all cases, as entirely the effect of the disease. It is certainly, in some, the expression of a cerebral imperfection of which the epilepsy is another manifestation. In such instances, mental defect exists before the occurrence of the first fit. In other cases, however, which constitute a majority of the whole, the failure must be regarded as a consequence of the disease. It distinctly succeeds the fits in point of time, and may lessen very much when the fits are arrested by treatment. It is not surprising, therefore, that in cases in which the mental defect exists before the fits commenced, this should be greatly intensified by the subsequent attacks. It is among these cases that many of the worst forms of mental failure are met with."

Gowers infers that females are somewhat more liable to mental defect than males during the course of epilepsy, and that the earlier in life the attacks begin the more liability there is to implication of the mind, though the second half of life is not exempt.

The duration of the disease has a distinct influence on the

occurrence of mental failure, greater, even, than the number of attacks, the frequency of which could not by itself be regarded as a cause.

Some authors consider the minor form of epilepsy as more destructive than the major form, but this has not been proved to be the case, and in my experience either form is compatible with mental health or disease. Two thirds of my *petit mal* cases do not suffer intellectual impairment, and I am inclined to think that *grand mal* is more hurtful to the mind, as epileptic insanity in asylums is associated more often with convulsions than occurs in the masked or larvated form, though it may be truthfully urged that many of the latter are not properly diagnosed as such.

Gowers concludes "that mental failure is determined less by single conditions than by their combinations, and it is probable that a more potent cause than the attacks themselves consists in a predisposition to suffer under their influence."

A combination of post-epileptic mental peculiarities and hysteria sometimes occurs, which it is well to recognize as not purely hysterical.[1]

Nothnagel,[2] in common with other authors, recognizes that epileptic violence may occur without a fit, in which the mental disturbances induce wandering and a disposition to strike and injure others. He further claims[3] that the number of attacks is not related to the mental disturbances.

In some cases of *petit mal*, at the time of the attack or immediately after, the patient may utter a few nonsensical or abusive words, and may thus provoke punishment by others, who do not recognize the diseased condition, and this may lead to retaliatory acts by the epileptic. My friend, Dr. Oviatt, was interested in a patient who had been abused even to the point of being knocked down, and the next day the epileptic struck the aggressor with a club and was arrested for assault with intent to do bodily harm. The increased irascibility of epileptics and their frequent violent tempers, even when unprovoked, should be considered in all instances where retaliatory or revengeful acts are performed by them. A person without the disease might do the same things,

[1] Gowers, op. cit., 98.
[2] Ziemssen's Cyclop. of Med. XIV., 221.
[3] Ibid. 256.

in some cases of the kind, but the epileptic should be especially considered as liable to be violent with or without motive.

The sole mental change of some epileptics may be an increase of irritability and resentfulness, and proneness to faultfinding and sarcasm. Or there may be sullenness and reticence, obstinacy and an appearance of brooding, which may be remarkably like what occurs in terminal dementia, though the mental loss may not be extreme.

During apparently sane intervals, epileptics in asylums are capable of combining; and under the excitement of attempting to escape they may commit terrible onslaught.

Eccheverria[1] illustrates the violence of epileptics at such times, due to their excitable and disordered brains, by quoting from Legrand du Saulle the case of a soldier, in 1868, who had not been known to be epileptic, but who was committed as insane. He met another epileptic, and the two pulled out iron bars from the window and killed two attendants in an endeavor to escape. Loss of recollection of what has occurred in such instances characterizes the epileptic assault, even though the plan to escape was made when the patients were conscious.

Stearns[2] relates a story of the murder of a physician in an asylum by an epileptic, remarking that "epileptics not infrequently exhibit acts of great violence, which are not immediately connected with convulsions of either form; and these acts may be the outgrowth of premeditation and careful planning, in consequence of some imaginary insult, or the denial of a request, and, again, from the effect of hallucinations." In describing epileptic fury, Stearns[3] says: "The patient displays the greatest destructive and reckless violence in his movements. He becomes intensely homicidal or suicidal, and strikes out in every direction, utterly regardless of who or what may be near by and likely to be injured; he may throw himself against the walls of his room or out of the window; he may seize and break into pieces every article of furniture in his room, on which he can lay his hands. Persons who, in the ordinary conditions of the nervous system, are by no means powerful, when in this state become so strong

[1] Journal of Mental Science, April, 1885.
[2] Mental Diseases, 409.
[3] Op. cit., 405.

as to require the assistance of several persons to control them. They are likely to tear their own clothing and that of others, into shreds; and they may soil their clothes, beds, or rooms, in the most disgusting and filthy manner." The head appears congested, the eyes are staring and protrude, and the heart beats rapidly. The excitement may last for hours or two or three days, after which, with or without sleep, the usual quiet may be resumed, with no realization of what has happened during the excitement.

Trousseau[1] says: "Whenever there is a revolting and motiveless crime I suspect the existence of epilepsy." Mann[2] also states his belief that most of the revolting and motiveless crimes in the annals of history are due to the epileptic state, and that such crimes often take the place of the epileptic paroxysm. He cites the case of Laros, who poisoned his entire family, consisting of his parents, himself, and six others. He was sentenced to be hanged, but on a writ of error the governor of Pennsylvania recalled the warrant, and a commission was appointed by the court, which reported unanimously as to epilepsy and irresponsibility; and the prisoner was confined in the state prison at Harrisburg.

Baillarger[3] as a proof that "epileptics may commit the wildest and most brutal crimes," mentions "a vinedresser who killed his three children with a mattock, and, a short distance further on, his wife and remaining child, horribly mutilating their bodies by repeated wounds. The crime was preceded by a fit of shivering, and the man had no consciousness of what he did. He was much attached to his family."

Falret[4] says: "The repeated blows struck and the several wounds inflicted, as well as their brutality and the want of, or insufficiency of, motive, characterize the crime of an epileptic lunatic."

Blandford[5] cites the case of Bisgrove, an epileptic, who was tried and found guilty of murder, and afterwards removed to Broadmore asylum. He found a stranger asleep in the field, and

[1] Clinical Medicine, I., 84.
[2] Psychological Medicine.
[3] Annales Medico-Psychologiques, April, 1861, 520.
[4] Maladies Mentales, 318.
[5] Insanity and Its Treatment, 190.

dashed out his brains with a big stone, and then lay down along side his victim and fell asleep. Blandford says: "From epileptics generally we may expect paroxysms of sudden and unaccountable violence, whether they occur in close connection with fits, or take the place of, or follow them."

Delasiauve[1] also notes that "epileptics, who are often victims of a wild fury, in open day multiply their victims and mangle their bodies, and, far from being intimidated by the presence of witnesses, they seem to be excited thereby. It is the absence of a sense of danger which, when it is met with, is one of the best proofs of the absence of free will."

Sheppard[2] could not account for an attack of ungovernable and motiveless fury in a boy of thirteen, except by supposing he was an epileptic, and finally "the fit came, and the demoniacal rage was transmuted into a distinct and characteristic convulsion."

Sankey[3] observes: "Some of these patients show a tendency to a particular form of violence, and in such cases, though the fits may come on only at distant intervals, they may be of a very dangerous character. When they occur they resemble closely those cases already alluded to as *epilepsie larvée*, of Morel. In these cases the act of violence is not always attended by unconsciousness. . . . Of all patients in asylums these are the most dangerous and what the world would call the maddest. . . . An epileptic who had been supposed to be perfectly harmless for many years, and was employed in out-door work at Hanwell, or other very light work, such as conveying the washing from the laundry under the charge of an attendant, one morning, without showing the least warning, raised the spade which he was using, and presenting its edge downwards, brought it down with all his force upon a fellow patient working by his side, and severed the head from the vertex down to the under jaw, and of course killed the man on the spot."

Voisin, Marc, Althouse, Maudsley, Bristowe, Banduy, and, in fact, all writers on the subject, attest the ferocity and irresponsibility of epileptics at such times.

[1] L'Epilepsie, 248.
[2] Lectures on Madness, 101.
[3] Lectures on Mental Diseases, 346.

Attacks of fury may occur in epileptics at night and when they are in bed, as well as at other times, and, as Hammond states: "Epileptic fits may take place during sleep at night, and the patient be unaware of their existence, unless he inflicts some injury on himself, such as biting his tongue, or is told of their occurrence by persons who may be in the same room with him."

Dr. Goode[1] records the instance of "a woman whose epilepsy was not suspected till she had four times dislocated her shoulder unaccountably to herself. She dislocated her shoulder a fifth time, but her husband chanced to be awake and observed evidences of epilepsy."

Dickson[2] reports a case where epilepsy had existed for years and had not been recognized. And Winslow[3] remarks that epilepsy may be nocturnal, and exist for years, and not attract attention, and that it is often, otherwise, undiscovered.[4] Bucknill and Tuke[5] mention that epilepsy is often hard to prove and may be complicated with monomania, and that a blind fury may be the only indication of epilepsy and may occur without fits.[6] Echeverria[7] holds that "the fiercer forms follow *petit mal*, rather than *grand mal*;" and Dickson[8] says: "Epilepsy is sometimes very transient, but in its most fleeting forms it is often attended with, or followed by, the gravest manifestations of mental aberration. In fact, the more fleeting the epilepsy the graver, as a rule, appear the mental symptoms."

Several authors note an exaggerated affectation of religion among epileptics.

The indifference to the consequences of their violence, which such patients exhibit, is also mentioned. Tuke[9] says: "A striking feature of the disease is the indifference of the epileptic who has

[1] Cincinnati Lancet and Clinic, 1883.
[2] Medicine in Relation to Mind, 27.
[3] On the Brain and Mind, 311.
[4] Op. cit., 349.
[5] Psychological Medicine, 261.
[6] Op. cit., 336 *et seq.*
[7] Epilepsy, 78.
[8] Op. cit., 27.
[9] Journal of Mental Science, XXVIII., 632.

committed crime, to his surroundings, and even to the sentence of death which may have been passed upon him." Morel[1] speaks of the want of regret shown by epileptics for what they have done, which sometimes contributes to their condemnation, as it is interpreted as criminal insensibility. Delasiauve[2] remarks the "complete indifference to the peril which menaces their life and property." Legrand du Saulle[3] also observes that "an epileptic lunatic manifests the most complete indifference to his fate if he be a homicidal criminal; and this indifference has tended to rouse public feeling against him, being regarded as brutality." Spitzka[4] also mentions that "the intervallary indifference shown by certain epileptics after crimes committed in the psychical equivalent attacks of fury has led to their condemnation, such indifference being interpreted as callous brutality."

It would have been well if these authors had added that, while this indifference is a marked feature in many cases, it is not invariable, for the epileptic who murdered the superintendent of the Avignon Asylum experienced great grief and remorse.[5]

Griesinger[6] says: "Striking psychical disturbances sometimes occur before the attack. Sometimes a confusing and obscuring of the consciousness, resembling drunkenness; sometimes profound sadness, and an extremely painful, angry disposition; sometimes violent hallucinations of all the senses,—immediately precede the attack."

The fright exhibited by some epileptics previous to an attack is recorded by Winslow, Eccheverria, Sieveking, and others.

That epilepsy may exist and not be suspected is affirmed by Magnan,[7] Dickson, Bauduy, Sankey, Hammond, Bucknill and Tuke,[8] Winslow, and many other writers.

The fact that epilepsy may be attended with isolated acts of violence has a medico-legal value, and is mentioned by Worcester,[9]

[1] Maladies Mentales, 591.
[2] L'Epilepsie, 241.
[3] Les Epileptiques, 261.
[4] St. Louis Clinical Record, VIII., 352.
[5] Stearns, Mental Diseases, 410.
[6] Mental Pathology and Therapeutics, 285.
[7] L'Epilepsie, 43.
[8] Op. cit., 316.
[9] Op. cit., 280–290.

and Hammond;[1] and that such patients may scheme to do violence is recorded by Clouston.[2] Savage[3] says: "There are cases in which a large amount of purposive action may take place and serious injury may be done, and yet the patient may be without the faintest recollection of what has taken place during the period of violence. That crime has been committed by patients during a state of epileptic furor I have no doubt,—crimes, too, of a most brutal and devilish kind. The perpetrator of some brutal murder may apparently have taken care to secure his victim and to hide his crime, but yet there is complete ignorance of all that has happened. He may impress the jury unfavorably by this apparent indifference and by his denial of any knowledge of what took place, although it is clearly proved that he appeared to see and avoid witnesses." Worcester[4] maintains, in common with all other authors, the irresponsibility of epileptics, though Bucknill and Tuke[5] claim that the ordinary epileptic is not to be regarded as irresponsible, "but the fact of his being subject to fits must form a very strong presumption in his favor." Sankey,[6] discussing epilepsy in criminal cases, holds that "the history of the patient's life ought to settle whether the act was an insane one or a purely criminal act;" and further notes that there is a tendency of the epileptic mind to stay in one groove, to be unmanageable, and to brood over a subject and act accordingly. Clouston[7] mentions the asylum precept, "never to contradict an epileptic," and also the proclivity of epileptics to homicide. Worcester regards memory loss as most common among epileptics, and affirms that their judgment is apt to be incorrect.

In a later article by Savage,[8] than the date of his book, he speaks of a "dreamy state" which may precede a fit, and in which the actions may be of medico-legal importance, and says that delusions may arise in epilepsy causing the patient to believe

[1] Treatise on Insanity, 630.
[2] Mental Diseases, 289–294.
[3] Insanity, 125.
[4] Op. cit., 278 *et seq.*
[5] Op. cit., 339.
[6] Op. cit., 179 *et seq.*
[7] Mental Diseases, 289–294.
[8] Tuke, op. cit., 453 (1892).

that he has been maltreated, and to make false accusations before or after a fit. He also refers to the overlooking of attacks, and the later development of convulsions where some offense had been committed by a person not previously recognized as epileptic; and says that fully organized and unconscious automatic acts which had begun before the attacks may be continued, more or less altered, after unconsciousness; he mentioned the instance of an epileptic cutting a baby's arm off during an attack previous to which the patient had been cutting bread. Checks have also been automatically signed by epileptics, with no subsequent recollection of so doing. Fits have been followed by sleep, and afterwards a restless mania has appeared, with ideas of persecution and ill treatment. Sometimes a succession of maniacal attacks would resemble one another closely, though they might vary as to length. Suicides are as liable to occur as homicides, during epileptic insanity. Savage notes a melancholic aggressive or a quiet state, in some cases replacing the mania; but such patients brood and are revengeful. He divides mental epileptics into those who are suspicious, irascible, and consequently dangerous, and a type that is milder, weak, and sheepish. Mere treatment fails to lessen the mental disorder, which he sums up as consisting in memory weakness, lessened power of attention and application, reduction of will power, bestiality, and uncertain temper, as well as insane explosions with violence.

Spitzka[1] relates the instance of a combination of post and pre-epileptic automatism, and, as bearing upon the law in civil cases, another epileptic who "forgot important business transactions, claimed to have signed vouchers which he had never signed, did not recollect having signed others which he had signed, and became abstracted and dreamy; on one occasion undressing in the office." In the signature to a will he manifested extraordinary tremulousness and irregularity. "The lines were broken, one 's' looked like an 'e,' the scrawl was almost illegible, and the name 'George' appeared as if it had been written 'Georger' or 'Georgia.' His ordinary handwriting was a good, clear, average business hand, and he had been in the habit of signing himself 'Geo.,' abbreviating the 'George.' In the signature there was a

[1] Manual of Insanity, 265.

gap and covered-up break between the first three letters and the last three, as if the decedent had started to write his usual abbreviation, and completed the full name, probably on suggestion."

Bucknill and Tuke[1] mention an epileptic compositor who set up type during an attack, so that it read: "Chri Cüsrishian years days association was ashoiciacation afforcited for the ogffer cas chere chere choredess,"—whereas the sentence should have been: "Christian association was held at Westborough yesterday. Officers for the ensuing year were chosen as follows."

A will made between two epileptic attacks may not be the product of an unsound mind, but the will contents would be likely to afford the best evidence of the mental state. Probabilities only could be affirmed in such matters, as the mental perversion is apt to recur in any epileptic at any moment.

Feigned epilepsy is resorted to sometimes for begging, pick-pocket, or sympathy-producing purposes generally. The severe fit is the one usually selected, but many of the genuine features of epilepsy cannot be copied, unless, indeed, the fit be resorted to by a genuine epileptic, which sometimes occurs. Simulators are in danger of instituting the real for the pretended disease, as has happened to actors whose parts required such pretense of epilepsy.

Many disappearances of the mysterious kind are undoubtedly due to epileptic patients either killing themselves, or wandering away and meeting with accidents resulting in death, or, while in the condition of so-called "double consciousness," losing their identity; but such cases are likely to return to their homes when the mental obscuration ceases. Several unsatisfactorily reported cases of epileptic-like loss of identity recurring and persisting for months or years are narrated in newspapers, but, aside from the double-consciousness cases reported by French authors, alienistic literature is rather silent on the subject. Azam[2] treats of the matter in connection with somnambulism. This last derangement of sleep Isaac Ray[3] discusses in an interesting manner, citing instances of remarkable performances by sleep walkers. At the time he wrote, somnambulism was not regarded, as it now is, as related to epilepsy, and under the title, "Periodical Sleep Seizures of an Epileptic Na-

[1] Op. cit., 309.
[2] Tuke, op. cit., 401.
[3] Medical Jurisprudence of Insanity, chap. XX

ture," Dr. George W. Jacoby,[1] of New York, affords an excellent review and study of the subject, with a bibliography. Jacoby refers to the complexity of the subject and its difficulties, and says that but little advance has been made in its study. Under narcolepsy he classes all cases in which irresistible somnambulism occurs suddenly, and he leans to the belief that, even when hysteria complicates such attacks, their epileptic nature is obvious. It is well known, he remarks, that sleep after an epileptic attack occurs in many instances, and not at all in others. So, he very properly considers many of these sleep phenomena to be instances where "attacks of sleep constitute the chief symptom" of epilepsy, and relates the case of an epileptic who, while asleep, performed many automatic actions of a quiet nature, such as walking, talking, etc., but who, after convulsions, often ran as far as 500 feet before falling asleep. This sleep lasted for a quarter of an hour. Another case was that of a barber who at first fell asleep while shaving a customer, and, finally, upon all manner of occasions. His lighter attacks seem more like *petit mal*, and during his heavier seizures he cannot be awakened. He was somnambulistic from childhood. In some attacks of somnambulism he created disturbances by shouting, and striking about with any object within his reach. "In one of these attacks he struck his room mate with the water pitcher, and the following morning knew nothing of what he had done." It is probable he has unobserved epileptic fits, as he says his tongue is often sore and swollen, and it shows scars such as are made by epileptics biting their tongues during convulsions. Corpulence is associated, in some, with the diseased propensity to sleep attacks. As an example of the medico-legal relations which sleep seizures may have, Jacoby reports a case of attempted murder by a probable epileptic somnambulist who was not recognized as such, and at the time was considered to be a malingerer. Jacoby urges that, in dubious cases where loss of memory of events is alleged, *data* corroborative of epilepsy should be sought; and he regards somnambulism as undoubtedly epileptic, particularly if of the noisy kind, and suggests that sleep attacks occurring alone or in combination with other symptoms, if of brief duration and followed by amnesia, are probably also epileptic in character.

[1] New York Medical Journal, May 20, 1893.

Sleep walkers are divided into those who act, see, feel, hear, smell, and speak. Some appear to have every faculty but consciousness, while others are restricted to one, or to the exercise of two or three of such abilities.

Tuke[1] says: "Criminal acts have been performed during sleep, and an expert knows this statement is beyond contradiction. It may be very difficult, if not impossible, to distinguish between ordinary somnambulism and nocturnal epilepsy. The case of Fraser, the man who took the life of his boy in his sleep, is perhaps the most important case which has found its way into a court of law."[2]

Taylor[3] gives instances of crime committed during sleep states.

Wharton and Stille[4], under sleep-drunkenness, describe an irresponsible condition upon being suddenly awakened. By the French the state was named "*somnolentia*," and by the Germans "*Schlaftrunkenheit.*" The first case was that of a sentry who killed the officer who had suddenly aroused him; and another instance was that of a laborer who killed his wife with a wagon tire, the blow being struck immediately upon his starting up from a deep sleep. Other instances are cited, but the liability to such sleep impulses, of itself, would raise the question of a possible connection with, at least, some nervous peculiarity, whether it amounted to a disease or not, that should be discovered by study of its cause, if possible.

What would influence the conduct of a healthy person should not be assumed as a standard for epileptic behavior. The one afflicted with this terrible disease may or may not be mentally affected. He may be periodically, or constantly, insane; he may act impulsively upon a motive, or without one; he is capable of premeditation, planning, and cunning revenge; or, through a delusion or blind fury, he may attack the nearest person, or scheme for weeks to injure some particular individual. The epileptic is usually resentful, and taunting one is dangerous. Because epileptics have been known to take advantage of their recognized

[1] Op. cit., 1173.
[2] See Journal of Mental Science (1878), 434.
[3] 2 Med. Juris., 586.
[4] Medical Jurisprudence, I., 484.

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irresponsibility to do acts which they know are wrong, it does not follow that responsibility is thus indicated, for, had they not been mentally diseased, it is a question whether they would have availed themselves of any such excuse. The epilepsy may have suggested both the offense and the excuse for it. Acts may be premeditated by epileptics, or performed without premeditation, impulsively; a motive or an insufficient motive may prompt a dangerous offense, or murder may be committed in the absence of motive. Both deliberation and uncontrollable impulse are consistent with epileptic crimes; and while indifference to consequences is frequently shown by epileptics after committing an offense, on the other hand, remorse and contrition may also follow such acts.

Epilepsy may occur in other insanities than that of epileptic insanity proper. It is a debasing disease in itself, and is a factor in the production of insanity, next to intemperance in frequency.[1] It may be directly transmitted to offspring, or may be observed in families, associated with other evidences of depraved mental and nervous systems. The epileptic parent may have epileptic, idiotic, depraved, maniacal, or melancholic, offspring; or an insane parent may have epileptic, idiotic, or insane descendants; but epilepsy may be isolated and have no such associations.

Stimulants and tobacco are pernicious in epilepsy, often increasing the fits when used; and even tea and coffee are injurious to some.

The notorious murderer, "Jack, the Ripper," it has been claimed, was finally discovered in the person of a London physician, who, in the interim of his epileptic-like mental attacks, led an irreproachable life. Such systematic brutalities are quite consistent with some phases of epileptic insanity; and Forbes Winslow, the well-known English alienist, is given as authority for the statement that this murderer is now in an asylum and is violently insane. Many such crimes, otherwise inexplicable, have been perpetrated which have not been sufficiently studied in connection with epilepsy and somnambulism, owing, doubtless, to failure to recognize such phenomena in the individual, or to ignorance that apparently insignificant epileptic characteristics had anything to do with such matters.

[1] Bucknill and Tuke, op. cit., 91.

Taylor[1] states that in only one instance has insanity been pleaded for a criminal assault on a woman; it was at Glasgow on December 23, 1862. His mother said he was an epileptic and had delusions, one of which was that he would lose his life unless he acted as he did. The jury acquitted on the ground of insanity.[2]

Homicide by an epileptic young girl (*People* v. *Sadie McMullen*) is detailed by Dr. Wm. C. Krauss, of Buffalo, N. Y.,[3] as having occurred at Akron, N. Y., October 31, 1890. The girl was nineteen years old, and of twenty-five of her ancestors thirteen were mentally deranged, and in others phthisis and alcoholism were causes of death. She had become greatly dejected after being accused of thefts and other misbehavior unconsciously committed by her during epileptic mental states, and wrote a letter declaring her intention to commit suicide, but before jumping into Murder Creek she pushed two children from a bridge, one of whom was drowned. Her trial before the court of oyer and terminer began on March 5, 1891, and lasted three days. The plea of insanity was entered by her attorneys, and in thirty minutes the jury handed in a verdict accordingly. She was committed to the Buffalo State Hospital.

The fact that epileptic insanity consists in a combination of physical and mental infirmities is recognized in *Com.* v. *Buccieri*,[4] and that epilepsy is a disease producing great nervous susceptibility and a tendency to mental alienation is also stated in another decision.[5] Whether epilepsy has or has not impaired the mind to such a degree as to make the patient irresponsible, or sufficiently to incapacitate him in civil transactions, may be extremely difficult to determine, and in many cases impossible to decide. The only sure way to arrive at conclusions in order to determine many doubtful cases of alleged epileptic or other insanity, would be to permit competent alienists to keep the person under observation a sufficient length of time to enable them to study his life history. Epilepsy should always give rise to a doubt of sanity, notwith-

[1] 2 Med. Juris. 581.
[2] Edin. Month. Jour., Feb. 1863, 772.
[3] Journal of Nervous and Mental Disease, July, 1891, 416.
[4] 153 Pa. 535.
[5] Com. v. Winnemore, 1 Brewst. (Pa.) 356.

standing the fact that most epileptics are considered sane by the public. Occasions arise when any epileptic is liable to be insane and to do what, were it not for the epilepsy, he would not have done. Nor should there be any arbitrary rule laid down by court or physician as to how an epileptic should act when insane, as in the instance of *Taylor* v. *United States*,[1] in which it was held that "epileptic insanity will not be admitted as a defense in a criminal action, however, where it is not different in its actual manifestations from emotional insanity." The term "emotional insanity" has been sufficiently criticised in this work and by other writers as inexact, but regardless of what it may or may not be assumed to include, Omniscience alone could lay down rules as to how the epileptic insane should act *on all occasions*.

It is one of the most formidable and often puzzling alienations with which humanity is afflicted, and should be free from dogmatising or limitation by *dicta*.

So-called light attacks of epilepsy may have serious consequences to the mind, and that no attack has been observed for some time does not lessen the possibility of mental derangement, for sometimes insanity takes the place of epilepsy,—a contingency not sufficiently considered in *Com.* v. *Buccieri*.[2] In this same case it was also held to be inadmissible to state that the accused had a child who was subject to epileptic fits of the same character as his own,—a fact that specialists in nervous or mental diseases would consider as of major importance, both as to diagnosis and prognosis, as indicating the profundity of the disease. A drunkard may be epileptic, or an epileptic may be a drunkard, and either disease may be the cause of the other. Drunken stupors in an epileptic may be due to drunkenness, epilepsy, or to both. Jurists incline to look upon the plea of epilepsy in criminal cases as too often a subterfuge, and it is worthy of regard that the plea of epilepsy has been falsely set up in some criminal cases. The main contention should be as to whether the epilepsy is a fact or not, and when that is established, the well-read, thoroughly educated, and experienced alienist is inclined to credit almost any criminal possibility as an outcome of the disease. Persons with little knowledge of such matters are more apt to

[1] 7 App. D. C. 27.
[2] 153 Pa. 535.

have positive opinions where the alienist cannot decide or prefers to have more evidence. The temperate opinions of the courts as to the effects of epilepsy in civil cases should influence their decisions in criminal cases.

The English Commissioner of Lunacy Report for 1887 enumerates 777 male and 417 female, or a total of 1294, epileptics, among 14,336 insane. It does not follow that the insanity depended directly upon epilepsy, for the same cause may produce both insanity and epilepsy.

Cases of Epilepsy and Epileptic Insanity.

S. Aged six years, maniacal, restless, whines but is mute; habits filthy and mischievous; convulsions daily.

M. Memory poor, aura in head, hallucinations of hearing; repeats the same sentence many times; otherwise seems rational. After several successive attacks grew violent, restless, turned around often, then lapsed into stupidity, alternating with fits.

N. Female; furor when excited, independently of the epilepsy, which was severe and occurred three or four times daily every two or three weeks; worse at the menstrual period; acts silly after the fits, with slight stupor, from which she emerges apparently sane. Epilepsy began with menstruation at age of fourteen. Persistent nymphomania; has repeatedly enticed men and borne several illegitimate children.

H. Larvated or masked epilepsy; has a younger brother also epileptic; is usually quiet and well behaved. Has *petit mal* attacks preceded by excitement, during which he runs about, laughs, cries, whistles, vociferates, and talks nonsense.

S. Larvated epilepsy; mania once in three weeks, lasting a day or two, during which he was destructive and homicidal; attacked several other patients without provocation; destroyed furniture, and claimed to have a taste for blood. His furor was preceded by pallor and then flushing of the face. He had no physical epilepsy so far as known. He finally became demented.

H. Epilepsy ceased suddenly, and profound dementia followed, lasting a month, when he died. Hæmatoma auris present.

Y. A cabinetmaker who, between attacks, would appear to be sane, and who manufactured violins, furniture, models of ships, etc., with great ability; played cards better than anyone else in the

asylum. After a fit he would have a stupid period, followed by violent mania. During an attack he stabbed a fellow patient. His fury would appear at night usually and about monthly. He finally died during an attack. His skull was found to have been fractured, and a piece of bone an inch square had been removed from the upper frontal region. A steatoma of 2 cubic inches in size rested on the left orbital plate of the skull, obliterating the olfactory nerve of that side, and extended upward about 2 inches into the brain, having destroyed the lenticular nucleus and half of the corpus striatum; his heart had undergone fatty degeneration; both kidneys were lobulated; and his pectoralis major and deltoid muscles were divided into strands. The medico-legal importance of this case lies in the organic degradation of the brain without discoverable mental deficiency during his lucid intervals, and his murderous assaults after the spasms.[1]

R. In the interim of three attacks of epilepsy, followed by fury, during two years, he kept a saloon, but claimed that he did not drink. He experienced a curious warning of the approach of his trouble; he would feel as though his bowels were about to move. For a day beforehand he would lose appetite, be sleepless; and by taking ergot and bromides at such times, and the inhalation of amyl nitrite if the warning was felt, the attacks were completely broken up. He had one furious outbreak at the Alexian Hospital, during which it required a large force of men to control him.

B. Five convulsions in three years, apparently connected with whisky drinking, for which he took treatment. After stopping the stimulants, mental epilepsy appeared, and for awhile he manifested angry outbreaks, but these gradually disappeared.

B. Girl of seventeen. After scarlet fever and consequent suppurative middle-ear inflammation, had irregular epileptic attacks, with a tendency to rotate the body to one side; some atrophy of the muscles of the back on the right side; hallucinations of sight and hearing and a very defective memory; but as she was drenched with bromides, how much of these conditions was due to overmedication and how much to the disease, was not ascertainable.

E. Young lady; had attacks of epilepsy yearly when over-

[1] Chicago Med. Jour. & Exam. May, 1884.

worked. Memory defective, brooded much. Her father was dipsomaniacal. Under treatment with digitalis, ergot, bromides, and tonics, and being encouraged to seek society, she improved greatly, and has not had an attack for five years.

L. Glassblower; entered the Alexian Hospital; aphasia with right hemiplegia, following upon one of his epileptic fits, to which he had been subject three years. He had sustained a left parietal injury when young. He had apparently fully recovered when he left the hospital after a month's treatment, though, so far as his fits are concerned, it could not be known whether his recovery was permanent or not.

A. Hemiplegia, amblyopia, and facial palsy in an epileptic, rapidly yielded to anti-syphilitic drugs, and, so far as known, the fits ceased.

S. Fell from a tree when a boy, breaking his leg and hurting his head. Mental and physical epilepsy followed; memory became defective. During one *petit mal* attack he sat down upon a hot stove; his fits sometimes numbered five in one week; he was taciturn, moody, and irritable, but moral and temperate. A barkeeper boarding at the same house with him and his wife seduced the latter and abused the husband, at one time catching him by the throat, and threatening to kill him. Word was conveyed that the barkeeper was with the woman, and the epileptic mounted a stepladder, looked over the transom of his room, and saw enough to anger him. He broke the transom glass with his fists, and rushed about the house vociferating and talking crazily, finally falling in a convulsion, and did not regain consciousness for several hours. Finally the barkeeper met him at the head of the stairs and addressed him offensively. S. drew a revolver and shot him through the lungs, firing several badly aimed shots afterwards; and, though he had no fit at this time, he claimed to have been unconscious till awakened in jail. The barkeeper recovered, and, when cross-examined as prosecuting witness, admitted that he was rooming with the wife of the epileptic. To disprove the epileptic mental condition, it was claimed that S. transacted the business of a barber daily, and had no convulsions in his barber shop. A witness stated that when S. saw the barkeeper coming up the stairs he rolled his eyes, turned pale, and his face worked convulsively. The jury promptly acquitted the epileptic.

A. Pubescent girl had what she called "trance states," in which there was loss of consciousness and hallucinations; digitalis was given to regulate the heart action, and the diseased condition disappeared.

G. Epilepsy developed rapidly in a young man, and he died a year after fits began. Post mortem revealed sarcomatous tumor in the brain.

C. From eleventh to twenty-sixth year occasional nocturnal epilepsy, occurring when dropping off to sleep. Head would turn to left side, and eyes twitch, and eyebrows would be corrugated, with sore feeling in right arm after convulsion. He was greatly benefited by ordinary anti-epileptic treatment, which he had not previously used.

J. During a trephining to relieve epilepsy a large hæmatoma of the dura mater was discovered, and by inference this slowly growing blood tumor gradually developed the epilepsy as follows: In 1872 tingling began in *right radial fingers* and up the arm. Three weeks later the tingling began in the right toe, recurring at irregular intervals until 1876, when the right hand, side, and arm cramped. There was no unconsciousness until after that date; after that eight times in seven years there was unconsciousness with the cramps, preceded by a sensory aura in the right hand or side. In addition there had been about thirty or forty light attacks; some of them recurring twice monthly, or in groups of successive days. The attacks grew more frequent, in keeping with the probable growth of the blood tumor. This case is mentioned in illustration of a rare demonstration of a cause for epilepsy. There were no general convulsions, the right arm being most affected, and the unconsciousness causing the patient to fall.

R. Attacks of epilepsy began in a young lady after witnessing the killing of her mother during a tornado which destroyed the house.

B. Pain in the heart precedes his epileptic attacks. When the pain rises to his head he "does strange things" without knowing anything about them. He has stammered frightfully since becoming epileptic.

H. Somnambulism about three or four times a year. His epileptic convulsions, which occur independently of his sleep-

walking, are preceded by a mental aura. He sees a certain childhood scene each time before the fit begins. When walking in his sleep he tries to leave the house in his nightdress, and has succeeded twice in getting into the street. At such times he tries to carry out some routine operation, such as going to his office, or hunting for a book which he will appear to read if he obtains it, turning over the leaves at regular intervals. He distinguishes persons and objects by sight, can answer questions, and to some extent can be managed by a little adroitness until he falls into a quiet slumber; but occasional attempts to control him have aroused a terrible fury, in which he would tax the strength of several persons. At such times he fancies he is being assaulted, and retaliates regardless of consequences. For six months I had this young man under my personal observation, and could realize that somnambulists might readily commit, while unconscious, a great range of apparently criminal acts without preserving the least remembrance of what had been done.

D. While on trial for murder at Woodstock, Illinois, he simulated an epileptic fit in the courtroom, but confessed on the gallows that he had tried to deceive the court and jury, and that he was not an epileptic.

B. Pleaded epileptic unconsciousness to account for his theft of a horse and buggy, and during the trial fell into convulsions, concerning the nature of which there was diversity of opinion among medical men. Doubt of the genuineness of his epilepsy or its validity as an excuse for the larceny caused him to be sentenced.

S. A negro epileptic ravished and murdered a girl in Chicago, and was hanged for the brutal offense. His brother, who was not an epileptic, was subsequently found guilty of attempt to commit rape.

E. An epileptic in Detroit had been annoyed by abuse, and turned on his persecutor furiously. The fact that a motive existed for the assault was urged against the plea of epilepsy, but it was shown that epileptics may be aroused to violence by what would be insufficient to aggravate a healthy person.

Mrs. G. *Grand mal* suppressed by treatment, but has *petit mal* attacks numbering one thousand a year. She exclaims and talks a little during each seizure. The interchangeable nature

of her warnings are peculiar. Usually the aura is from the stomach, but at other times it may be auditory, optic, olfactory, or tactile.

S. An instance of senile epileptic immorality, who, without being intemperate, abandoned his wife, cut off his children from the bulk of his property, and after divorce married an adventuress. His father had a similar career.

Mrs. G. The wife of an itinerant photographer, was informed by him that he intended to desert her. She assisted him in packing his trunk, and when he came to take it away she killed him and her infant by shooting them with a pistol, and then shot herself in the head, but survived. Three weeks previously, while enduring abuse from her husband, she had bought the pistol from a pawnbroker and had kept it secreted. The day after the shooting she emerged from stupor at the county hospital, and asked for her baby, claiming no knowledge of what had happened. Her father was an epileptic, and it was proved that she had also been seen in convulsions. The previous purchase of the revolver, and keeping it in readiness, would appear to disprove the epileptic impulse of the shooting; but her claim that she had no recollection of the purchase made it appear that during an epileptic mental attack she had procured the pistol, and had forgotten about doing so, until another occasion, when the brutal desertion of her husband brought on an attack resulting in his and her baby's death. The character of her husband did more than anything to sustain her defense, and she was promptly acquitted.

CHAPTER XXV.

LEGAL ADJUDICATIONS AS TO EPILEPSY.

Uncontrollable epileptic homicidal impulses alleged as a defense in a criminal prosecution are governed by the legal rules affecting other defenses of insanity in general.[1] Epileptic insanity consists of a combination of physical and mental infirmities;[2] and epilepsy is regarded in a criminal prosecution as a disease producing great nervous susceptibility and a tendency to mental alienation;[3] though the court will not assume as a fact that those afflicted with it are easily excited to passion and revenge accompanied with a morbid irritability which must impair moral responsibility, and which is of itself sufficient to negative deliberation and premeditation.[4] But an epileptic mother who causes the death of her child at a period midway between unconsciousness and consciousness, during an epileptic fit, while she has regained the power of automatic action, but is not sufficiently restored to know the nature and consequences of her act, is not responsible therefor.[5] Epileptic insanity will not be admitted as a defense in a criminal action, however, where it is not different in its actual manifestations from emotional insanity,[6] and evidence that a person accused of homicide was an epileptic, and that the tendency of that disease in an aggravated form is to weaken the intellectual powers, and in some cases to produce total insanity, but which fails to show that his affliction impaired his intellect to any serious extent, or in any degree affected it at the time the crime was committed,—is not sufficient to show irresponsible insanity at that time.[7] Nor is evidence, in a prosecution for larceny, of epileptic attacks suffered by the accused, supposed to have been occasioned by a blow on the head in early life, and

[1] State v. Leuth, 5 Ohio C. C. 94.
[2] Com. v. Buccieri, 153 Pa. 535.
[3] Com. v. Winnemore, 1 Brewst. (Pa.) 356.
[4] Com. v. Buccieri, 153 Pa. 535.
[5] Jenisch's Case, 3 Abb. N. C. 200.
[6] Taylor v. United States, 7 App. D. C. 27.
[7] Com. v. Buccieri, 153 Pa. 535.

that his mother was deranged at some period of her life, but had since recovered, sufficient to establish insanity which amounts to an excuse, where it appears that he knew he was doing wrong, and fully appreciated the consequences of his acts.[1] And evidence that the defendant in a criminal prosecution was subject to epileptic fits will not justify the giving of an instruction that if the jury believed his faculties were so impaired that he could not recognize the person killed, who was a police officer in uniform, they should acquit;[2] and the court will not assume that the testimony showing epilepsy is not contradicted, and instruct the jury that this fact of itself should be sufficient to raise a doubt as to the prisoner's criminal responsibility, where it is contended from the evidence that the accused had not been afflicted with epileptic attacks for a long time before the crime, and that from the light character of the disease it had little, if any, effect on his mental condition.[3] So, the exclusion of evidence with relation to the sanity of a brother is not error, when offered after proof that the father had epileptic fits, but before proof of insanity of the accused or any member of his family, or that epilepsy is a disease which affects the mind, the order of proof being in the discretion of the court.[4] And evidence that the accused had a child who was subject to epileptic fits of the same character as those with which he claimed to be afflicted is inadmissible.[5] And when the accused offers evidence of epileptic fits followed by stupor and a disordered mind of such frequent occurrence as to render it fairly inferable that for a great part of the time he was insane, evidence of neighbors that they had never seen him have an epileptic attack, but had often seen him drunk and in a drunken stupor, is admissible as tending to show that the stupor which he attributed to epilepsy was really due to drunkenness.[6] So, evidence of an attending physician that an injury received was of a kind which would naturally produce epilepsy is cumulative, and will not warrant a new trial in a criminal prosecution, when the *datum* from which he draws his conclusion is in the possession of

[1] Lovegrove v. State, 31 Tex. Crim. Rep. 491.
State v. Hayes, 16 Mo. App. 560.
[2] Com. v. Buccieri, 153 Pa. 535.
[3] Walsh v. People, 88 N. Y. 458.
Hall v. Com. 22 W. N. C. 25.
[4] Com. v. Buccieri, 153 Pa. 535.

experts testifying at the trial.[1] Nor is the occurrence of an epileptic fit after a trial for homicide, in which the defense was epileptic insanity, a ground for a new trial, where there was evidence that the accused had numerous fits in his infancy, and a few in later life, and one a week previous to the homicide, and there was some evidence tending to show that he was feigning insanity, evidence of the subsequent fit being merely cumulative.[2] And where a person accused of homicide, who interposes the defense of epileptic insanity, testifies in his own behalf to his own insanity, the court may direct the attention of the jury, without suggestion or comment, to his appearance and conduct as facts for their consideration along with the other testimony.[3] And evidence in a prosecution for larceny, that about three years prior to the alleged defense, and since the accused had been in jail, he had been subject to epileptic fits and that they had weakened his mind, which would tend to account for contradictory statements made by him about the possession of the stolen property when he was arrested,— is not admissible unless followed up by proof to show that such fits rendered him irresponsible for such acts.[4]

So, where a contract is made by a person under the effects of an epileptic fit, it is important to show how long he had had the disease, and its effect upon his health, mind, etc., to enable the jury to form a correct judgment of his mental capacity at the time it was made.[5] And epilepsy may produce mental incompetency which will invalidate a deed.[6] And codicils to a will, executed after a stroke of apoplexy followed by paralysis and epilepsy, which rendered the testator unable to speak or write or in any way indicate his wishes, are invalid.[7] But probate of a will will be granted where there is nothing in the evidence to negative testamentary capacity except while the testator was actually under the influence of epileptic fits, to which he was

[1] People v. Kloss, 115 Cal. 567.
[2] People v. Montgomery, 13 Abb. Pr. N. S. 207.
[3] Com. v. Buccieri, 153 Pa. 535.
[4] Gross v. State, 62 Md. 179.
[5] Clinton v. Estes, 20 Ark. 216.
[6] Potter v. Woodruff, 92 Mich. 8
[7] Parish v. Parish, 42 Barb. 274.

subject, though there is an entire absence of proof of instructions or knowledge of contents, and the attesting witnesses cannot recollect any of the circumstances attending its execution;[1] and a will made by a testator two weeks after an epileptic convulsion, such convulsions usually rendering him weak in mind and body for two or three days thereafter, so that he failed at such times to recognize friends and relatives, is not invalidated for want of testamentary capacity, where, when he recovered from such attacks, his mind again became clear and strong, and his will was reasonable, and differed from previous wills only in accordance with changed circumstances and conditions.[2] And the testimony of a priest who drew a will for a person afflicted with epileptic fits, and who had no interest thereunder, that the testator fully comprehended the will, showing all the circumstances under which it was executed, is sufficient to sustain it, though he had an epileptic fit about five minutes after signing it, after which he sank rapidly and died; and the testimony of a subscribing witness that he did not know what he was doing will not affect its validity, in view of the impropriety of attesting a will when the testator was known to be in such a condition.[3] So, a commission may issue against a person afflicted with epilepsy, who is not competent to manage himself or his property, though there is no proof of natural insanity,[4] and one who was a bright child until nine years of age, when she became affected with epilepsy and lost her mind, becoming at the age of thirty-three unable to take the slightest care of herself, though not an idiot, is an insane person within a statutory provision for the care of the insane, restricting the term "idiot" to persons foolish from birth.[5] And death of an insured person from being seized with an epileptic fit and falling into a stream while fording it, and drowning, is death from personal injury caused by accidental, external, and visible means, within the meaning of an insurance policy insuring against such death.[6]

[1] Foot v. Stanton, 1 Deane & S. Eccl. Rep. 19.
[2] Re Rapplee, 66 Hun, 558.
[3] Re Lewis, 51 Wis. 101.
[4] Re Monahan, 9 Ir. Eq. Rep. 253.
[5] Speedling v. Worth County, 68 Iowa, 152.
[6] Winespear v. Accident Ins. Co. L. R. 6 Q. B. Div. 42, Aff'g 42 L. T. N. S. 900.

It is a question for the jury in a criminal prosecution in which epileptic insanity is alleged as a defense, whether the accused when he committed the offense was or was not capable of distinguishing right from wrong, or was under the influence of any delusion with respect thereto which rendered his mind at the moment insensible of the nature of the act;[1] and an instruction in a prosecution for murder in which insanity is alleged, that if the accused had been subject to attacks of epilepsy, and if epilepsy is a disease which tends to produce insanity, these facts are not sufficient to raise a reasonable doubt of his sanity at the time of the offense, is erroneous as tending to mislead the jury and as interfering with its province to weigh the evidence.[2] So, expert witnesses in a prosecution for homicide in which epileptic insanity is alleged may give opinions, where they had seen the accused immediately after the offense, as to whether there were any indications in his appearance of a recent epileptic attack, and, when called upon to give opinions as to the effect of epilepsy upon the memory, may give, as an illustration of a sound memory, an opinion as to the prisoner's power of memory from the nature and accuracy of his narrative on the witness stand.[3] But a medical expert called in a prosecution for homicide, on behalf of the accused, cannot be asked on his examination in chief what he considers some of the commonest and most frequent causes both of epilepsy and of insanity;[4] and witnesses in a criminal prosecution, in which insanity is interposed as a defense, and it is claimed that the accused was subject to epilepsy at intervals, and that during such attacks and from their effect a day or two afterwards he was mentally irresponsible, cannot give an opinion as to his sanity or insanity at the time of the commission of the criminal act, where they had not seen him at all for four months, and had not seen him thus afflicted for seven months.[5] Nor should the jury be told that medical evidence is to be regarded as of the lowest order, when the question is as to whether the accused was afflicted with a certain form of epilepsy, and as to the particular

[1] Bowler's Case, 1 Collinson, on Lunacy, 673.
[2] Guetig v. State, 66 Ind. 94, 32 Am. Rep. 99.
[3] Com. v. Buccieri, 153 Pa. 535.
[4] Hall v. Com. 22 W. N. C. 25.
[5] Com. v. Buccieri, 153 Pa. 535.

characteristics of that form, with relation to its producing periods of insanity with a homicidal tendency.[1] The subject of epilepsy with relation to its admissibility and effect as evidence, both in criminal and civil matters, has been incidentally considered elsewhere in this work.[2]

[1] State v. Townsend, 66 Iowa, 741.

[2] See chapters VII., IX., X. For Dr. Clevenger's discussion of Medico-Legal Aspects of Epilepsy, see conclusion of preceding chapter, XXIV., pages 1057 *et seq.*

CHAPTER XXVI.

PHTHISIS.

Tuberculosis. In 1810 Bayle demonstrated the extensive distribution of little cheesy masses in the body, in the course of consumption; and in 1881 Koch announced a tubercle bacillus as the special carrier of the disease. Phthisis, or consumption, is popularly supposed to be solely a lung disease; but besides pulmonary phthisis there are tubercular affections of many other parts. The bronchial tubes, pleura, larynx, pharynx and trachea, stomach, intestines, peritoneum, liver, spleen, kidneys, urinary passages, sexual organs, blood, heart, lymph-glands, skin, bones, brain, may, each and all, be either primarily or secondarily affected by tuberculosis. What was formerly called scrofula is now known as tuberculosis of the lymphatic glands; and the cancer of the face entitled *lupus vulgaris* is also a tuberculous disease. Tubercular meningitis, with headache, fever, coma, and rigidity of the back and neck, is often a rapidly fatal disorder. Another and entirely different condition known as tuberculosis of the meninges or brain, usually consisting in disseminated tubercles on the cerebral and meningeal surfaces, has been frequently found *post mortem*, with no consequent mental disturbance during life; but large or "massive" tubercles form sometimes at the brain base, and act as tumors, and produce many sensory and motor derangements, eventually destroying life.

Tuberculosis of parents often produces sickly and generally defective, sometimes idiotic, children; and the tendency to phthisis is notoriously transmitted, and runs in families. Tuberculosis of the lungs has remarkably little injurious influence upon mentality. There is a hopeful, contented disposition usually developed in consumptives, known for ages as the *spes phthisica*, which prevents them from realizing their condition, even in the last stages of the disease; and quackery finds ready victims among them, because of the avidity with which they listen to knaves who prey upon their inclination to believe that they have some temporary ailment which can be readily cured by patent medicines or the charlatan. Otherwise, most patients have a perfectly clear intellect to their latest breath; and this is important to remember in considering testamentary capacity in such

cases. The morbid hopefulness, however, has induced many consumptives to begin extensive business or other projects which they would otherwise have realized the impossibility of completing.

On page 355, *supra*, mention is made in a legal decision[1] of the fact that physicians have considered a patient delirious because he insisted that he was better, when he was in the last stages of consumption. It is a common peculiarity of phthisis to be hopeful and to make such assertions, and they cannot properly be regarded as evidence of delirium or incapacitating mental disturbance.

Occasionally, as Clouston[2] notes: "Persons of a strongly tubercular diathesis and with a consumptive heredity have been observed, in too many cases to be mere coincidence, to exhibit an irregular mental brilliancy without balance, a fancifulness, a careless changing from hope to despondency, an incapacity for continued mental exertion, a causeless suspicion at times, that we cannot but connect with the influence of weak respiratory organs on the brain." The whimsicality, mental unrest, vivid fancies, almost amounting to delusions, mentioned in Clouston as occurring in the last illness of phthisical patients, is not peculiar to them, as such symptoms may be observed in many feverish patients with other diseases.

Consumption is kept in check by alcoholics, the brunt of their influence apparently being expended upon diseased tissues such as the lungs, retarding destruction as well as sustaining the strength, and affecting the mind but little. It is astonishing what amounts of liquor are taken in some cases of pulmonary phthisis. The disease has been known to progress with rapidity when the patient ceased to take the liquor. The stomach, however, is liable to be deranged where large quantities of wine, whisky, etc., are taken by phthisical patients, resulting in the chronic gastric catarrh or gastritis (inflammation of the stomach) described by Niemeyer.[3]

Phthisical insanity was not recognized by Griesinger, though the frequency of consumption among the insane was observed

[1] Ayres v. Ayres, 43 N. J. Eq. 565.
[2] Tuke, op. cit., 947.
[3] Text Book of Practical Medicine, I., 494.

from early days to have been three times greater than among the sane population. Formerly 25 to 30 per cent of asylum patients suffered and died with tuberculosis; but modern hygiene has reduced this, in many of the better conducted institutions, one half.

Van der Kolk[1] and Guslain[2] were among the earlier writers to call attention to the association of phthisis with insanity. The former stated: "It is remarkable, when in the very same family some of the children suffer from mania or melancholia, and the brother and the sister, who have remained free from these diseases, die of phthisis." Guslain remarks: "Pulmonary tuberculosis appears to me to be in direct relationship with insanity; it is frequently seen in the descendants of the insane, and in their progenitors." Insanity and phthisis both depend upon debilitated or depraved constitutions, and whatever tends to retard nutrition affords the soil for either or both conditions. W. W. Ireland found two thirds of his imbeciles and idiots scrofulous. In many scrofulous infants, with or without mesenteric tuberculosis, or hydrocephalus, the tuberculosis produces a forwardness, or "precocity," often mistaken for early intellectual development, when it is really the precursor of a general dissolution.

Phthisis may complicate any form of insanity, and appear in connection with one or more such factors as chorea, alcoholism, the climacteric, etc., obscuring the study of its influence; but, as Clouston, Savage, and other alienists now agree, there is a definite set of symptoms that characterize an insanity of phthisis; symptoms invariable enough to justify the term "phthisical insanity." Some cases resemble mania, others melancholia, and most of them appear like paranoiacs with delusions of persecution of rather a mild nature.

Suspiciousness is the most prominent characteristic of all phthisical insanity patients. They are irritable, morose, and unsociable. A remarkable feature is that in about one third of the number, the physical symptoms of consumption, such as cough, fever, night-sweats, etc., are absent during the insanity, to return when the mental conditions are improved. Tubercles are not

[1] Mental Diseases.

[2] Leçons orales sur les Phrenopathies.

found in the brain often enough to ascribe the insanity to them, but the gray matter of the brain is found scantily supplied with blood,—anæmic.

Clouston records one third of his phthisical insanity cases as having recovered from their mental disease; and I have known recovery to take place in a few months, and in some quite suddenly. One female with "florid phthisis," or rapid consumption, exhibited her physical symptoms with her insanity; expectorating and perspiring freely. She suspected others of stealing from her, and accused her husband of unfaithfulness, to her last moment. Death occurred in a month after the mental symptoms appeared. Another female combined phthisical heredity, alcoholism, and some hysteria, but without physical symptoms. Her pulse was rapid; she had crying spells, delusions of conspiracy and marital infidelity and of poisoning. She tried to kill her mother with a knife. Her two children were scrofulous. She recovered, and the phthisis for years seemed to remain latent.

Hallucinations of sight and hearing sometimes occur.

CHAPTER XXVII.

RHEUMATISM AND GOUT.

Both rheumatism and gout may, during chronic stages, cause modifications of character, particularly in the direction of irritability. Gouty anger is well known, and much of the mental change may be due, in both complaints, to the pain endured.

Rheumatic insanity occurs, if at all, usually during abatement of the ordinary rheumatic symptoms; or it may alternate with the swelling and pain in the joints. Melancholia is the convalescent rheumatic form, and mania is the form if insanity occurs during the rheumatism. Torpor, frightful hallucinations of sight, sometimes resembling those of delirium tremens, and occasionally abusive auditory hallucinations, occur. Food may be refused and there may be suicidal attempts with morbid impulses. Most cases recover, but a few become demented. Relapses are common. Katatonia and chorea are connected with rheumatism in some unknown way.

Gouty insanity is practically acute mania, unless it alternate with the physical symptoms of gout, when the reverse of what occurs in rheumatism has been observed, in the form of melancholia of a hypochondriacal order, some stupidity, and a suicidal inclination. Recurrences are liable as long as the patient has gout.

CHAPTER XXVIII.

DESTRUCTIVE BRAIN DISEASES.

The brain is the organ of the mind, but it may suffer some injury, within certain limits, without discoverable mental impairment; and "the brain is always the seat of insanity, but it is not always the seat of its cause." It is conceivable that the headquarters of a telegraph system may be thrown into confusion by causes hundreds of miles away. Different parts of the brain preside over, or are the centers for, the movements of special parts of the body, and the special senses also are centralized in pretty definite brain areas.

The right side of the brain regulates the movements of the left side of the body, and the left side of the brain controls the right side of the body; hence the bursting of a blood vessel in the left brain may paralyze the right arm and leg. The speech faculty is in the region of the left temple, in right-handed persons; so that a right-sided paralysis is often attended with loss of the ability to speak correctly. Left-handed persons have the speech center beneath the right temple, and as the ability to communicate thought is intimately related to the intellect, a right-sided paralysis in a right-handed person is apt to involve operations more or less connected with mentality, if it does not disturb the mind itself. A left-sided paralysis of a right-handed person, in itself, causes no mental impairment, and may frequently be observed in connection with full mental vigor.

Roughly localized, the center for the face is above and just forward of the ear; the center for leg movements is near the upper back part of the head; and between the face and leg centers is the center for control of the arm. Blood vessels supply these parts, branching from the brain base, so that the blood supply may sometimes be cut off by a clot or hemorrhage, from a small part, or a large area including several centers, according to whether a main stem or a branch is thus interrupted. When the heart stops beating, blood no longer circulates in the brain, and immediate unconsciousness results. So, if parts of the brain suf-

fer failure of blood supply, the function of such parts will be arrested, permanently or temporarily, according to the gravity of the interruption. The bursting of a blood vessel in the brain is more serious, usually, than plugging of a blood vessel, as in many cases the clot which impedes the flow of blood may be absorbed. Tumors, also, by pressure upon vessels or brain parts, may destroy functions. Secondarily a degeneration of adjacent portions of the brain may follow, and thus, by extension of damage, further physical and mental failure may supervene.

Impressions received through the eye are in the tip of the back part of the brain; and forward of this, in the lower middle region, are the auditory impressions. Destruction of any one of these brain areas causes a corresponding degradation of function. One suffers loss of the ability to read or write, or to interpret what is heard, according to the part of the brain injured; just as cutting off the leg, arm, or face centers in the brain from their connections with the body will paralyze the related group of muscles.

Aphasia is a speech derangement due to disease of the speech centers in the brain or their ramifications.

Amnesia is memory loss, general or special. There may be a loss of auditory memory, so that names or spoken words convey no meaning to the mind (word-deafness), and music once appreciated and recognized is forgotten; or the visual memory may be absent, so that faces, places, persons, printing, writing,—all that has been learned through the eye—is obliterated. The auditory and optic memories being more frequently in requisition in mental operations, their absence or impairment is more noticeable than when the senses of smell, touch, or taste are impaired; and though what has been memorized through their exercise, is necessary to the enjoyment of healthy life of the mind and body, the extinction of the eyesight and hearing memory causes the greatest inconvenience to the person. If one of these memories only be destroyed the judgment may apparently be as good as before; but it stands to reason that discrimination based upon past experiences recorded in special centers must be at fault if such special sense records are obliterated.

Amnesic aphasia is a brain derangement in which the memory of words is partly or wholly lost. The patient knows what he wishes to say, but the words escape him. Nevertheless he can

repeat the words immediately after hearing them, sometimes realizing their connection with ideas he wishes to convey, but oftener failing to do so. In partial afflictions of this kind, certain words, usually nouns, or a language, may be forgotten.

Ataxic aphasia consists in the inability to articulate the word, while its remembrance is intact. *Paraphasia* is the disposition to substitute one word for another. For example, one apoplectic asked for his umbrella when he meant to ask for a fan. *Monophasia* may be observed in paralytics whose speech center is destroyed, and it consists in the use of a single word or ejaculation for every idea they desire to express. For example, at the Milwaukee Soldiers' Home there was a paralytic who used "aye" for all speech purposes. "How do you do," he was asked, and he replied by nodding his head and remarking, "aye, aye," in a tone as if he answered, "Very well, thank you." When asked how old he was, he held up his hands and closed the fingers five times, and then extended two fingers, to indicate that he was fifty-two years old, after each motion pronouncing the single word "aye." Another soldier, looking on, remarked: "He thinks he is talking when he speaks only that one word," whereupon the patient scowled at the impertinence, and rapidly scolded by quick, angry repetitions of "aye, aye, aye, aye, aye, aye."

The vocabulary of an aphasic may contain several words, and may vary, from time to time, or grow larger or smaller, as the speech center in the brain retrogrades or is restored.

Agraphia, or the loss of the ability to write, caused by brain disease, may be due to amnesia, and is usually associated with aphasia. The patient is unable to speak and cannot write, because the written characters are forgotten, but he may he able to copy writing correctly.

Alexia is the loss of the ability to read. Printing and writing have no meaning to the mind of one thus afflicted. One may be mentally deaf to the sound of words, and yet be able to recognize the written or printed symbols and their meaning.

Amimia is the inability to gesticulate properly. Some paralytics may nod their head in negation, or otherwise make inappropriate signs.

Apraxia is a condition in which one object is mistaken for another.

Aphonia is speechlessness, and is not necessarily related to structural conditions, occurring temporarily, as a rule, in hysteria. The other defects mentioned indicate serious destruction of the parts of the brain which store up visual and auditory impressions, and regulate speech, writing, and gestures. Such impairment varies in degree, and does not necessarily prove that the mind is involved beyond the difficulty in understanding and expression described. But, on the other hand, it is not safe to assume that the intellect is not generally defective in many such cases. Wills and conveyances made and business transacted by patients suffering from organic brain disturbances of any kind need careful consideration because it is probable that associated mental disease has interfered with the proper performance of such acts. Mental involvement may be presumed, but the presumption may be overcome by evidence showing that, excepting his inability to write or to speak, or his failure to remember written, printed, or spoken words, in the manner described, the patient was in possession of all his mental faculties. Then the question how far such failure of expression or understanding constitutes incapacity to perform important transactions, or exposes the man to undue influence, should be duly considered. One who because of disease or ignorance is incapable of understanding a written document may sign it without full appreciation of its provisions or consequences. Proof of capacity in such instances in addition to the signature and careless attests should be demanded, particularly where the suspicion of incapacity may be as fairly raised as when the brain is not organically intact.

I knew an amnesic-aphasic and agraphic patient who attended to all his business matters intelligently. Upon his recovery he stated that his disabilities often rendered him unable to determine what he had better do under certain circumstances, but, being fully aware of his derangement, he carefully avoided committing himself when in doubt. A brain lesion may or may not be restricted to simple deprivation of certain faculties, but the full enjoyment of intellect is possible only when the brain functions are unimpaired. When apoplexy, hemorrhage into the brain, embolism, etc., overwhelms both mind and body, of course there is no doubt of the true condition; but in case of partial interference with brain operations,—as, when special functions

are destroyed,—there is great difficulty in determining how far the whole mind is implicated. Kussmaul,[1] Strümpell,[2] Gowers,[3] Starr,[4] Dercum,[5] and other more or less modern writers on these subjects should be consulted in cases requiring further study of such phenomena; and an important contribution to the medico-legal aspects of aphasia is made by Dr. Theodore Diller.[6]

Cerebral hemorrhage, embolism, thrombosis, inflammation, abscess, tumors, syphilis, and other causes, known or unknown, may be the origin of brain impairment; and it may appear suddenly or gradually, demonstrably or almost imperceptibly. Usually the mental implication is a matter of fact to be determined on other than mere physical evidence of brain trouble, as the latter only raises the question whether more serious damage to the seat of the intellect is or is not associated with the aphasia, etc.

Any disease of the brain, organic or functional, may affect memory. New impressions, in such instances, are retained with difficulty. Sometimes many years of life may be lost from memory, temporarily or permanently. In rare cases of recovery from this memory lapse, the older impressions are first recollected and then the more recent.

Deficient power of attention, and inability to concentrate thought upon one subject, may coexist with general memory failure, or may exist without it. In the latter case the inability to fix the attention leads to superficial observation, which may be mistaken for memory loss. Hypochondriacal patients who dwell upon their own feelings do not give sufficient attention to other matters, and thus add a fear of mental failure to their morbid apprehensions.

Incoherence of ideas is apparent in delirium and in some forms of mental failure. Defect of moral sense may follow structural brain disease.

Single or associated physical evidences of brain destruction

[1] Ziemssen, op. cit.
[2] Text Book of Medicine, 671 *et seq.*
[3] Diseases of the Brain.
[4] Surgery of the Brain.
[5] Nervous Diseases.
[6] Journal of Nervous and Mental Disease, May, 1894, 292.

interference with brain function are—dilated or contracted pupils; crossed or divergent eyes; drooping of the eyelids or inability to close them; a retinal condition, known as choked disk; difficulty in swallowing; loss or partial loss of the touch sense; various eyesight, olfactory, auditory, or gustatory defects; paralyses of single groups of muscles, or a large portion of the body, as in facial paralysis or hemiplegia; headaches, vomiting, dizziness, loss of co-ordination, causing staggering and allied movements; fainting spells; and, in the graver instances, temperature changes, respiratory and heart difficulties, and, finally, towards the end of life, loss of control over the bowel and bladder movements.

Softening of the brain is ignorantly used as a term to designate popular misconceptions of many different kinds of insanity.

It is a common experience for physicians connected with insane asylums to have every conceivable form of insanity sent to them as "softening of the brain;" and the cause of this prevalent ignorance is no exception to the universal rule that there is a reason for everything.

In the first place, the brain being the acknowledged seat of the intellect, "softening" of one, in the popular estimation, should appropriately be associated with a like condition of the other, and thus fact and metaphor become mixed; and this misuse of terms too often has the sanction of the old family doctor, who sees a case or two of insanity during his lifetime. Imagine the disgust of this same honest old physician if some professional brother were to use the word "dropsy" in its lay sense, as satisfactorily accounting for any one of the many diseases of which it is a termination or symptom. Yet, there is far greater justification for the use of the word "dropsy" as an omnibus, because it describes an actual, objective condition, which no one informed in cerebral pathology would claim to be the case in insanity, either as a cause, or a result of the causes of, the mental ailment.

Coupled with this convenience of the term for those who vaguely regard the brain as a mass of fatty substance enclosed in a bony box, there is a traditional warrant for "softening of the brain," dating from the time when arteries were so named because they were supposed to contain air, and handed down with the expression, "blue blood in his veins."

In remote ages the devil was regarded as responsible for all

ailments whatsoever, precisely as our Indians of to-day preserve that belief as a survival from the ideas of our common primitive ancestry. Physical causes for ordinary bodily troubles were acknowledged as sufficient explanations centuries before people dared to question diabolism in connection with "spiritual" maladies; and, considering the ages usually required to educate "*homo sapiens*" out of fetichism, we really should congratulate ourselves that such an expression as "softening of the brain" exists to foster the conception among the *hoi polloi* that insanity is any kind of a cerebral disease.

To be "wounded unto death" was all the old-time leech cared to know was the condition of his patient, and the pathology, diagnosis, and prognosis were combined in those words, as sagely as the therapeusis of the time required the sword that caused the wound to be anointed.

When the human intellect had advanced to the idea that there were different kinds of sicknesses, the great distinction was made between insanity and lunacy in the assertion that the moon's phases controlled the last named, thus relieving the devil of part of the odium, until the introduction of "softening of the brain" transferred the entire responsibility.

But terms often outlive their usefulness and become positively obstructive to the spread of knowlege, and in the matter under discussion we have an instance.

Many physicians in general practice and specialists in other than alienistic fields, all of whom may be excellently educated men in other respects, are unaware of the advances psychiatry has made in the last half century; but opportunities for informing themselves are increasing; and "Spitzka's Manual" is now as indispensable as "Niemeyer's Practice," whether the library is overstocked or contains but an armful of books. And in this "Manual of Insanity" by Spitzka, "softening of the brain" will not be found in the index, and is mentioned but once in the book, in connection with paretic dementia: "Quackery treats this disease as brain softening." He did not consider it necessary to allude to the popular use of the words.

Early in this century a scientific nomenclature was used in European asylums to the exclusion of expressions in common use, notwithstanding the fact that, to within recent years, the German

alienist occasionally catered to the vernacular to the extent of using "*Gehirnerweichung der Irren*," for which paretic dementia was the exact equivalent, and the name did not embrace everything else, though "*Grössenwahnsinn*" did erroneously include monomania and paretic dementia, or grandiose insanities generally. The French uniformly restricted "*ramollissement*" to the pathological condition. English alienists, as a rule, were not behind their continental colleagues, but several writers, who undertook to instruct practitioners in general, were unfortunate enough to perpetuate the error.

Just as in schools we find some excellent and some very indifferent teachers, so in every cyclopædia there are first-class articles written by authors who are masters of their subjects, sandwiched between inferior essays.

In 1866 Reynolds and Bastian[1] published a dissertation upon softening of the brain. The subsequent editions did not change the text, and the footnotes contain references to writings of the earlier part of this century, and nothing later than 1867 is quoted. In the main this article embodies the information and misinformation of thirty years ago. Great advances in special knowledge have been made since that time, particularly with regard to the brain and its functions; and it is now known that the same symptoms described under that head may occur where there is no softening of the brain at all, or in very many different conditions, such as are induced by atheromatous arteries, aneurisms, syphilis, meningeal disease, tumors, embolisms, thromboses, extravasations, etc., depending upon the part of the brain diseased and the degree of the damage.

Robert T. Edes[2] briefly reviews the present status of softening of the brain by stating that it "is a name which it is yet too early to omit altogether from a systematic work, although in treating of it we have more to do with nomenclature and classification than with pathological anatomy. The phrase may be said to have both an anatomical and a clinical signification, which do not coincide at all points. Clinically and among the laity it is used to express various symptoms and groups of symptoms more

[1] Reynold's System of Medicine, I., 856.
[2] Pepper's System of Medicine, V., 989.

or less referable to the brain, some of them connected with one and some with another lesion, and many purely functional—if the word may be used—or at any rate unconnected with any known or definite lesion.

"Vertigo, dull headache, sleeplessness, or, on the other hand, drowsiness, failure of memory, failure of power of concentration, of steady application, mental depression, fatigue, and even slight aphasia or actual slight hemiplegia, may, any of them, be considered symptoms or forerunners of softening of the brain. As nearly as anything the popular notion of this affection corresponds to general paralysis of the insane or senile dementia, or even mere exhaustion."

Edes then goes on to state that "a general softening of the whole brain, such as seems to be the condition supposed when the phrase is used, cannot and does not exist, since a vascular lesion sufficient to cause anæmic necrosis of the whole brain must cause death long before softening would have time to take place."

Winslow, in 1866,[1] uses the words in their olden ambiguous sense, though his work is useful to-day as referring to many alienistic points not touched upon by most authors.

Dickson, in 1874,[2] says that "sometimes in the insane we find softening, and much has been made of it. It is highly probable, however, that many of the pathological conditions of the brain, found upon the post-mortem table in autopsies of the insane, are accidental, and particularly the condition of softening. I know of no form of insanity, for instance, which can be said to be the result of softening of the brain. I have often heard people speak of 'softening of the brain,' but I candidly confess I do not know what is meant by the expression."

Rush,[3] in 1812, does not use "softening" to designate any form of insanity, but mentions (p. 23) that "we sometimes discover preternatural softness in the brain in persons who die of madness, similar to that which we find in other viscera from common and febrile diseases. This has been observed to occur most frequently in the liver and spleen. The brain in this case partakes of its texture and imbecility in infancy, and hence its ina-

[1] Brain and Mind.
[2] [illegible] to the Mind, 385.
[3] [illegible]

bility to receive and modify the impressions which excite thought in the mind."

Isaac Ray,[1] avoids any allusion whatever to the expression under discussion, an indication of his disbelief in the association of such a pathological condition with insanity.

Niemeyer[2] describes, in his complete and lucid way, the secondary degeneration of the brain following upon embolism, etc., the date of his first edition being 1858; and to his work and the recent publication of Strümpell,[3] the practitioner can refer for details as to what actually constitutes "softening." The latter mentions dementia from senile softening rather unguardedly, for the admitted arterio-sclerosis is more properly to be regarded as the cause of both the mental and the cerebral degeneration.

An embolism, a thrombus, or syphilitic degeneration of an artery, or, in fact, any condition that will cut off nutrition from a brain region, may secondarily give rise to softening, but the paralysis, speech failure, and word blindness or deafness, associated with such states, are caused by the initial lesion, and not by the softening, as a rule, unless the latter extends beyond its original limits; and in any event there is no justification for the vulgar use of the term "softening of the brain" in connection with insanity.

In cases of simple hemiplegia in old people, when the intellect may have been comparatively undisturbed, the pathological fact that softening of the brain really does often supervene has been taken advantage of or has been confused with the popular idea of the condition, to the prejudice of justice, aiding wrong conceptions, and confusing innocence.

Testamentary capacity may exist in spite of right-sided hemiplegia with aphasia; but the instant the admission is made that softening may follow upon the extravasation or embolism that caused the apoplexy, the judge and jury receive an erroneous impression that may wreck a home, defraud widows and orphans, and divert fortunes from the direction intended by the testator.

Dementia from coarse brain disease is practically a terminal dementia. Injuries, inflammation, brain hemorrhages, embolisms,

[1] Med. Juris. Insan.

[2] Text Book of Practical Medicine, II., 175.

[3] Op. cit., 698.

tumors of the brain, etc., may cause this mental degradation. Post-paralytic insanity, primary dementia, and organic dementia, are names that have been applied to this disorder. Softening of the brain occurs adjacent to the original lesions, and atrophy of the whole organ hastens the cerebral destruction.

A merchant who had suddenly lost his mind was brought to the Reese Hospital. He awoke one morning and appeared to be utterly indifferent to his surroundings, gave short and inapt answers to questions, and otherwise appeared like the terminal dement of the asylum, who had gradually passed to that condition after years of more active insanity. By exclusion and on other theoretical grounds I located the lesion in the left anterior cerebral artery. The patient died a week later, and an autopsy made by Dr. Goodkind revealed an area of softening in the left frontal lobe, with obliteration of a portion of the left anterior cerebral artery.

Ordinary tumors may cause dementia, but a peculiar case occurred at the State Insane Hospital at Elgin. A demented lady with ocular choked disk and glaucoma was found, upon her death, to have had a peculiarly malformed skull; my friend, Dr. Arthur Loewey, the estimable superintendent of that institution, reports that the anterior fontanelle had closed with a depression amounting to an exostosis, which pressed downwards an inch below the skull surface, and became practically a bony tumor pressing the brain; and, in the absence of other probable causes, this malformation was undoubtedly the origin of the ocular and mental trouble.

Landon Carter Gray[1] relates the case of Mrs. Caroline C. Fillmore, widow of Millard Fillmore, Ex-President of the United States. In 1877, three years after her husband's death, she gradually became maniacal, and in 1880 was paralyzed on one side, and in a subsequent attack, a year later, she died. A will dated 1879, and a codicil made in 1880, left her property in trust for religious and charitable purposes, and cut off her natural heirs. In the paralytic attack of 1881 she became aphasic, and was reduced to a vocabulary of five words: "I say; I say the [illegible]:" and occasionally "good night." She had evi-

[1] [illegible]gy and Psychiatry, III., 549 (1885).

dently been suffering from brain derangement for two years prior to making the will, and the delusions and insane acts related as occurring at the date of the will and codicil making were enough to convince any alienist that Mrs. Fillmore was decidedly insane. The will, however, was sustained, and Dr. Gray suggested as a time and expense-saving expedient that the law should provide that "all wills should be admitted to probate except those of slobbering idiots and raving maniacs."

Atheromatous insanity was formerly grouped among forms of "primary dementia;" and in Spitzka's first edition it was called "primary mental deterioration." August Voisin[1] discovered the relationship between the pathological atheromatous condition of the brain arteries and the disease, and properly designated it as *folie par atherome.*

Spitzka[2] gives the best description of the disorder, and defines it as "an uncomplicated enfeeblement of the mind, occurring independently of the developmental and involutional periods." I have been able to verify his relation of symptoms, and can readily see how this insanity has been confused by some alienists with senile dementia and paretic dementia, which it resembles but superficially. J. Crichton Browne mentioned it as a "chronic brain-wasting," a disorder in which there is confusion and failure of memory, lack of attention, and general inertia, enfeebled muscular power, some speech difficulty, unequal pupils, subnormal temperature, and head congestion.

Fleeting paralytic or apoplectic attacks and occasional convulsions, such as occur in paretic dementia, readily cause offhand diagnosis of the latter, instead of atheromatous insanity. Recovery has very rarely taken place, as the almost invariable tendency is to total loss of mind, and death, which is likely to occur within a few months. Business worry is the principal cause.

The patient may recognize the trouble himself, and in the early stages commit suicide. He may be told that he is suffering from "nervous prostration" or neurasthenia; his sleeplessness and worry increase, and may be associated with stomach, heart, and kidney derangement. Premature grayness has been observed. Absentmindedness attracts the notice of his relations or friends;

[1] Leçons Cliniques sur les Maladies Mentales, (1883) 79.
[2] Op. cit., 163.

strange breaks in letter writing, lack of punctuality, failure to keep engagements, business matters neglected or bungled, also grow more numerous and obtrusive. A strange indifference may overtake the heretofore busy man of affairs. His finances, through neglect, may suffer irreparable damage, but he hears of it without emotion, as though it did not concern him.

Asylum physicians seldom see cases of atheromatous insanity, as it is readily managed, quiet and rapid in its course, and home care is the rule in almost all instances. There are no delusions or aggressiveness, no disposition to do anything in particular. The patient may be silent for days, or answer with as few words as possible, or as far as his memory failure will allow him to do so.

The congestive attacks distend the degenerate arteries into aneurismal pouches, here and there; at times worse than others, accounting for the convulsive and paralytic phenomena, all of which is very transient. At times the mind may, for short periods, appear to be regained. Death may seem imminent at such times, with frequent rapid recovery; the mind grows more and more abjectly affected, and probably the average duration of the case before its fatal issue may be placed at about a year.

Delirium grave is styled "acute delirious mania" by some authors; and the misleading term "typhomania" has also been applied to it; invariably giving rise to the very erroneous supposition that this insanity is related to typhoid fever. It is not a mere exaggeration of simple mania, nor is it an episodical fury, such as occurs among epileptics and in some other insanities. Delirium grave is characterized by an extreme, continued, confused terror; combining the fury of mania and the fear exhibited in melancholic frenzy.

Schüle[1] describes the disease as one of violent excitement followed by grave cerebral exhaustion. Females are more frequently victims than males, and the puerperal state, particularly in the case of seduction or abandonment, is often found associated with the disease. Suffering, either mental or physical, conjoined with feeble health, creates the predisposition; and a combination of grief and anxiety precipitates the insanity. At first, sentences are spoken, and incoherence is shown in the irrelevancy and rapid

[1] Ziemssen's Cyclop., XVI.

change of expressions denoting extreme fear; eventually there is total incoherence of thought and speech. The outbreak is sudden or with only slight warnings. A general fear, akin to that exhibited in the delirium of fevers, possesses such patients, to an exaggerated degree. Sometimes the fright seems to be beyond expression and they stagger around as though dazed. Frightful hallucinations of sight are known to afflict them, and hallucinations of hearing are presumed. The restlessness leads them to attempt to escape, and to fight. Convulsive facial movements and absolute sleeplessness are common. Wasting is rapid, and the temperature is above normal, sometimes as high as 105° or more; the pulse is very rapid and weak. The hair falls out, the skin peels off and is congested; there are many "trophic" degenerations, sometimes gangrene or sloughs. Anæsthesia has been so extreme that patients have mutilated themselves without being aware of so doing. The breakdown is apt to follow in a week or two; but if recovery from the worst phases of delirium grave occurs, terminal dementia rapidly sets in; but the most common result is speedy death from exhaustion.

In a case of delirium grave at the county asylum I found, post mortem, an œdematous, puffy brain, smelling strongly like urine. Disintegration of that organ had begun before death; there was intense congestion, and the large veins of the brain were distended like cords, with whitish exudates on the brain surface, and general adhesions of the dura to the skull.[1]

Syphilis may affect any part of the body, any age, and either sex. It may be inherited or otherwise innocently acquired, and remain latent in the system twenty or more years. A history of "sore throat" and a falling out of the hair, at some period of life, is the rule in cases developing brain, nervous system, skin, and other subsequent, destruction. When the syphilitic poison centralizes itself upon one structure its influence for evil may be limited to special organs, though this is by no means invariably the case. Skin diseases of many kinds are among the tertiary symptoms; ulcerations of a peculiar "horse-shoe shape" often attack the legs; bones may be destroyed; the bridge of the nose may be broken down, and the bones of the face attacked, so that the face

[1] American Journal of Neurology and Psychiatry, Aug., 1883.

is disfigured—among the multitude of disastrous consequences of the disease. The blood is often impoverished, and a dyscrasia established that will favor any sort of nervous or mental depravity. Thus melancholia or mania may be induced, directly or indirectly, through syphilitic poisoning of the blood, qualitatively altering it and quantitatively lessening it.

While one mode of manifestation, at a time, is probably most usual, I have seen palmar and plantar psoriasis, the "ham-colored" skin disease of the palms and soles, associated with hypochondriacal melancholia in a male, and agitated melancholia in a female.

Cerebral syphilis is occasioned by gummy tumors in the brain and meninges, usually multiple growths as small as a pinhead and as large as a walnut when seated in the brain tissue, and as infiltrations, or plates, in the membranes. The growth of these gummata causes compression symptoms, and precisely such effects as are induced by hemorrhages, embolisms, or other injuries of the brain. Arteries may suffer from syphilitic inflammation and degeneration, rendering them more liable to rupture; and a hemiplegia occurring in a young man justifiably arouses the suspicion of a syphilitic cause.

Fournier[1] in a book of 600 pages has fully detailed the matter of brain syphilis in all its bearings. He shows that occasional idiocy, much of the half-sided paralysis of infancy, and a vast amount of the epilepsy occurring before middle life, are due to syphilis of the brain. Three to twenty years after the initial symptoms or acquisition, syphilis may show itself in cerebral symptoms, particularly in brain workers. Business and professional men are more apt to be attacked in this way than laborers or others who do but little brain work.

When the gummatous form of brain or spinal cord syphilis exists, it may be relieved by iodide of potassium and other antisyphilitic treatment; but when sclerosis or permanent alteration in nervous structure has followed, the damage cannot be repaired. Locomotor ataxia is found to have been preceded by syphilis in the majority of cases; and it is pretty well established that similarly, paretic dementia has been antedated by syphilis at some previous age.

[1] La Syphilis du Cerveaux, Paris, 1879.

The symptoms of cerebral syphilis are: A grinding neuralgic headache, fleeting pains in the arms, legs, and elsewhere, and compression symptoms of various parts of the brain, inducing eye and ear troubles, paralysis of the eye and face muscles, paralytic seizures of various other parts, and sometimes hemiplegia and epileptiform convulsions. Such phenomena are singularly transient, as though the compression was relieved by circulatory changes; though, of course, a paralysis due to the rupture of an artery, on account of its syphilitic degeneration, is permanent, like the hemiplegia caused by any other extravasation into the brain. The headaches may interfere with sleep, at first; but when great somnolence occurs in such instances, the syphilitic invasion of the brain has grown more dangerous.

Alcoholism, morphinism, and head injury sometimes complicate cerebral syphilis. In such cases the latter may have led to the use of stimulants or opium to allay pain, or a head injury afforded a point of development in the membranes or brain upon which the syphilis centralizes.

There may be vertigo, and a gradual impairment of the speech and the mind in general, manifest in memory defects, irritability, obstinacy, imbecile resentment, and petty malice. The effect of alcohol upon cerebral syphilitics is as disastrous as in head injury cases, and in fact overheating, or anything congesting the head, increases the sufferings of patients with either head injury or brain syphilis.

Syphilitic dementia has been occasionally confused with the curable form of paretic dementia, in which anti-syphilitics are so serviceable. Syphilitic dementia may be characterized by some of the physical evidences of cerebral syphilis, such as headache, divergent strabismus, transitory palsies and convulsions. The mind is dulled; business ability is lost; the patient is listless and apathetic, but irritable and aggressive if opposed. He resists being led anywhere and sometimes will not take food, does not want to be dressed and bathed, and is generally obstinate. Hallucinations of sight cause him to brush away imaginary insects, or to pick offensive spectral objects from his clothing. Delusions, if they exist at all, are likely to be very indefinite, or mere dream-like fancies of no particular coherence. Treatment for syphilis often wholly restores such dements, though it may fail to do so.

I knew one patient who recovered after he had been pronounced hopeless because the "insane ear" had appeared. This disfigurement gradually abated as he recovered his general health.

Syphilitic paretic dementia closely resembles the ordinary paretic dementia, and the main differences are that the former yields to anti-syphilitic treatment, and is complicated with cerebral syphilis and syphilitic dementia. But whatever the ætiological relation paretic dementia proper may have to syphilis, that which is clearly related to lues is often curable, and the form in which syphilis is more or less obscure proves to be incurable.

Paretic dementia is the best modern designation for the disease that has been variously called "general paralysis of the insane," "progressive paresis," "paralytic insanity," etc., as both the physical and mental peculiarities are included in the title "paretic dementia," while "general paralysis" has afforded ignorance an opportunity to excite merriment in court rooms, its literal meaning being a totally paralyzed state, whereas the alienistic application was, paralysis of any part occurring at different times. Misconceptions based upon the superficial indications of a name are easily made by the uninformed. One physician thought that moral imbecility was a term applied to imbeciles who were moral.

Mickle[1] presents the medical aspects of paretic dementia exhaustively, and followed his book on the subject twelve years later[2] by a cyclopædic summary.

Paretic dementia is a disease of the brain and nervous system, affecting sensation and motion, usually in a progressive manner, often accompanied by speech peculiarity and grand delusions; the changes in the brain being definite, and inducing a recognizable mental degeneration.

Nervous diseases or insanity are sometimes recorded as having occurred in the progenitors, but paretic dementia in most cases appears without hereditary predisposition; nor does the disease render the offspring more liable than other persons to mental or nervous complaints.

Its beginning is usually gradual, extending usually over a year of depression, though in exceptional cases it may appear to have

[1] General Paralysis of the Insane, London, 1880.

[2] Tuke, op. cit., 519.

been heralded for many years; or it may come on suddenly with a congestive attack, or an acute outbreak of excitement.

Investigation tends to prove that, in over three fourths of the cases, syphilis has antedated paretic dementia at some earlier period of life; but it is by no means proved that syphilis is the only predisposing cause. The exciting cause is mental overstrain, and for that reason business and professional men are more subject to paretic dementia than others. Males are more frequently affected than females[1] in the proportion of eight to one, and women are generally of the "quiet type" of paretics.

During the last two decades of the nineteenth century, through investigations of Erb and others, the conviction has grown that lues and worry are the predisposing and exciting causes of paretic dementia, at least in the great majority of instances, originating the saying that the responsible agents are "civilization and syphilization."

The fact that alcoholism and acute syphilis cause a form of paretic dementia from which the patient recovers under appropriate treatment goes to show that a functional derangement of the brain is the primary trouble; though when the disease runs its usual course there can be no doubt that organic ravages attend it. Every tissue appears implicated eventually, and even the bones, as in locomotor ataxia, become fragile, so that slight injuries are sufficient to break them. This fact often gives rise to unjust charges of brutal treatment of the insane, when the injuries may have been self-inflicted.

Mental symptoms usually precede the physical, but in some cases motor difficulties are observed first, as in the "ascending type" of the disorder, when locomotor ataxia or some spinal cord derangement precedes the insanity.

The pupils are frequently unequal in size, and may alternate, so that the contracted pupil of one day may be the dilated one of another day. In some cases both pupils may be dilated, or contracted, and in others there is no difference from the normal pupillary appearance. The knee reflexes are present in some and absent in others, or may even be exaggerated. The gait may exhibit unsteadiness, and inco-ordination be restricted or

[1] Paretic Dementia in Females; by the Author. Alienist & Neurologist, Jan., 1884.

general. Speech hesitancy, or drawling, with a tendency to slur the letter "r," similar to that occurring in drunkenness, is noticeable probably in a majority of instances, and always in the more pronounced and rapidly progressing cases; but in some this may not be observed at any stage. A peculiar, slow enunciation is characteristic of most instances of this dementia. The touch sense is blunted, and anæsthesia may be so extreme that even a severe injury or burn may not be felt.

Apoplectiform seizures occur in most cases, sometime in the course of the disease, with transient paralysis of parts of the body, about which time, either before or after, there may be violent frenzied outbreaks. Tremors of various kinds afflict the paretic.

Three periods are usually assigned to paretic dementia; in the first the change of character is noted; in the second stage the exalted delusions appear; and in the last period the dementia grows more profound.

Stupid thefts frequently characterize the early stage of paretic dementia; trifling objects may be absentmindedly pocketed, or even articles of value may be appropriated in a more or less open manner, and excuses offered when there is detection. Many an irresponsible paretic dement has been sentenced for such things, to have his insanity proceed through its stages of development in the penitentiary. A merchant paretic caused the police of Chicago considerable trouble in hunting for his stolen horse and buggy, and he was finally caught with the property, which he had been hiding for a month or more, for no explainable reason. Of course the newspapers denounced him as intending to defraud creditors, when it appeared later that the patient was in comfortable circumstances and had only an insane motive in stealing his own property.

The wife and family suffer neglect in the large majority of cases, and the patient may remark himself the singular perversion of his affections. In one instance a physician, in 1896, recognized the development of the disease in himself, and voluntarily sought seclusion in a St. Louis asylum. Even in the hitherto most respectable a moral change for the worse is frequently observed in such patients. Low company is sought, groggeries are frequented, prostitutes are associated with and often loaded with presents;

drunkenness may take the place of strictly temperate habits; politicians and pugilists may become the favorite friends of those who previously held such persons in contempt; sexual excesses are indulged in, at times disgracefully; leading to the popular mistake that such immorality was the cause of the disease, when it was merely a symptom. Business is neglected; obligations, engagements, and in fact nearly everything of importance is forgotten, or but imperfectly attended to. Empty abstractions occur, in which the wrong train is taken, or strange houses are entered; and indecencies are committed; wrong entries are made in accounts; words or letters may be omitted from letters; there is irritability over trifles and indifference to catastrophies; offense is as readily taken as in drunkenness, and violent assaults may be made with imperfect or no recollection of the circumstances, as in epilepsy. In fact, many of the paretic acts partake of amnesic, impulsive, and other semblances of epilepsy. Sleep is light and unsatisfying; but with all these failings, at which the patient may be himself surprised, occasionally, there is most often a feeling of well being, a maniacal joyfulness, and many are capable of more than an ordinary amount of work. Some of these patients have been extraordinarily fortunate in business matters, at such times, through recklessness and increased ability. This, however, is very precarious and liable to desert its possessor; and the recklessness more often results disastrously. The finer co-ordinations are lost, so that the watchmaker, stenographer, or engraver, can no longer follow his business, and careful discrimination in anything is impossible.

John McCullough, the actor, during this primary stage of paretic dementia, made himself notorious for squandering his money and for his dissipations. Extravagant projects may be formed and even fairly carried out. I knew a St. Louis paretic who gave away nearly a million dollars in presents to preachers, churches, charitable institutions, and almost everyone who struck his fancy, and yet managed to induce a company of Welshmen to buy an iron mine of little value for a vast sum of money.

A silly boastfulness is common among paretics, and fortunes may be dissipated very quickly, even at a time when there is doubt as to their insanity. I once advised a lady to take immediate legal steps to protect her paretic husband's property from insane

disposition, and was promptly rewarded with abuse, as she could see no sense in so doing. That night the patient tore out all his gas fixtures, as he proposed to put in electric lights in his jewelry store; and before morning he had given away the contents of his safe and a large quantity of watches and diamonds. Generosity to strangers and neglect of family interests are even more pronounced, in paretic dementia, than the same traits in some alcoholics. Undue influence is easily exerted at such times, and paretics often succeed in attracting a following of designing persons, many of whom are ready to swear to the perfect mental soundness of the party they are systematically preying upon.

In the quiet types of paretic dementia there may be complete absence of many of the features that make these patients disagreeable and dangerous. The ordinary paretic is liable to murderously attack anyone, especially his family, with knives, axes, clubs, or the first weapon that comes to hand. Insane prejudices against the wife or others, and abuse of them, may be the first thing to attract attention to the mental disorder.

Life insurance for large sums may be obtained by the patient in the period in which his malady is developing, and physicians inexperienced in alienistic matters often pass such cases, on examination, as "extra good risks." The high spirits and assertions of "never having been better," mislead the average life insurance examiner. Letters written at the time may exhibit little if any of the real condition of the writer; they may appear somewhat effusive, or emotional, but otherwise not remarkable. With the progress of the disease the feeling of well being passes to delusions of grandeur; the patient asserts that he owns millions, or even billions, of dollars. Letters he now writes are much underscored, profusely capitalized, and loaded with exclamation points; he addresses public men, capitalists, magnates generally, and the President of the United States, or monarchs of other countries. The "crank mail" of such notables is always extensive.

The paretic dement with political aspirations thinks he is to become the President; if he have a theological bent he is apt to announce himself as the Deity. Two "Almighties" occasionally meet on insane asylum wards, and may come to blows over their claims; but the millionaires arrange combinations to divide the [illegible] between them.

But relativity is sometimes as potent in insanity as in ordinary life, in the estimates of what constitutes wealth; a pauper female at the county asylum, who had probably never owned five dollars in her life, when asked how wealthy she fancied herself to be, complacently drawled out, "I—have—two—hundred—dollars."

These delusions of grandeur are not systematized, like those of megalomania, which are argued about somewhat logically. The paretic only makes absurd assertions, and seldom attempts explanations. He feels himself to be the tallest man in the world, he can jump over a steeple, or lift a house; and he may, while signing a check for imaginary millions, carefully guard the actual 15 cents in his possession. While an ambitious delusion may be fixed for a few days, it is sometimes changed for another, or dropped altogether, and depressed delusions take its place. Quiet periods may alternate with troublesome attacks. In the latter everyone comes in for filthy abuse, the asylum physicians especially. Paretics at times succeed in getting scurrilous letters mailed, and "investigations" are thus occasionally originated.

It is seldom that a paretic cannot be approached or cajoled; he is readily flattered and diverted, as a rule, from whatever he may be about to do. Dr. M., a paretic at the county asylum, had broken through his corridor door with a hatchet, and his attention was called to the window, when he laid down the weapon, which was immediately secured. It is never necessary to resort to the stupid subterfuges which friends so often propose, like introducing the doctor to a paretic dement as a casual friend or a tradesman; for in his form of insanity the patient receives everyone, no matter who, with ready welcome, pleased to be able to discuss his hobbies at any opportunity, and to convince the doctor that he beholds a marvel of health and strength. During the frenzied attacks, however, more adroitness is necessary, or any ruse may fail; but paretics at such times can be frightened into better behavior by sternness and threats. There is no definite length to paretic maniacal excitement. I have seen them rave for weeks, and be without sleep, so far as could be ascertained, for months at a time, and then a remission might follow, lasting a week or month, in which there was no trace of insanity to be seen.

Remissions are irregular; some patients do not enjoy any, while

others have variable durations of relief, from many or most symptoms, for days and even five, ten, and twenty years. During some of these remissions, business may be resumed and be even well conducted; but the average paretic history is one of repeated returns to the asylum after many releases as "cured," improved, etc.

The apoplectiform attacks and convulsions with temporary paralysis may occur often, or seldom, and in some instances may be absent altogether. Death usually approaches slowly; in a few cases it may suddenly follow the only congestive seizure experienced.

Trophic disturbances follow the disorder into its last stages; bed sores, boils, gangrene, sloughs, and extreme emaciation, with various evidences of gross organic brain disease, are among the final symptoms; and to the last, when the completely demented paretic totters weakly about the ward with his "petrified face" and almost unintelligible chatter, the grand delusion that he is a god or Hercules may be still distinguished.

From the thirtieth to the fortieth year paretic dementia is more frequent, though a few very youthful, and still fewer senile, cases are on record. Dr. Loewey reports a case of paretic dementia running a rapid course in a patient of about twenty-five, whose father had also died with the same disease. Insanity of other forms may be succeeded by paretic dementia; sometimes it occurs as a complication.

While hallucinations of all the senses accompany the derangement, those of taste and smell are the most persistent, and delusions are erected upon such perversions. Syphilitic and alcoholic paretic dements often fully recover in a few months, but the regular form is, in the vast majority of cases, fatal. Some may die in the first week of the outbreak, while others may last fifteen years or longer. There is a "galloping" form in which death is speedy. Females endure longer than males, and hereditary predisposition to insanity prolongs the life of paretics. Three years is generally assigned as the average duration of all cases.

A few genuine cases of recovery from paretic dementia have occurred. Remissions are often mistaken for recoveries, and, indeed, the one cannot be told from the other except on a return of the disease.

Exhaustion, mental and physical; injuries; poisons of the nervous system, fevers, and such exciting causes as may induce other insanities,—precede paretic dementia; but the great cause appears to be excessive brain work, co-operating, in the majority, with luetic predisposition.

The morbid anatomy shows thickening of the membranes, bone degeneration, meningeal adhesions, atrophy and wasting of the brain, with hardening and softening of portions; ruptured, kinked, distorted aneurysmal blood vessels, many of them plugged with blood clots. The initial symptoms may be accompanied by no visible changes, but the destruction undergone by the brain in the advanced stages is peculiarly extensive, and is much more definitely associated with the symptoms than in any other form of insanity.

Among "men of affairs" whose undertakings have proved too vast for their mental health may be mentioned Helmbold, the "Buchu" manufacturer, and Delmonico, both of whom are said to have been paretics. The latter perished on the roadside after escaping from the place in which he was secluded.

Spitzka[1] gives 12 per cent as the asylum proportion of paretic dementia to other insanities, and believes it to be more common among northern than southern populations.

Terminal dementia, called by some writers "secondary" or "sequential" dementia, includes about two thirds of the average asylum population. The more abject of these dements are squatted about on the floor in a stooping position, responding to nothing but the call to their meals. They have no control over their evacuations. They have a tendency to keep their coats or dresses drawn up over their heads, as though to exclude light. Usually when they do not eat they are known to be dying. The insane ears and bloated, expressionless faces, common to the terminal dements, with their filthy helplessness, render them repulsive objects.

The milder grade of terminal dements constitute the large proportion of the working force of asylums; these frequently can scarcely be told from mentally healthy persons, until familiarity shows what is lacking in their mental balance. They are usually

[1] Op. cit., 180.

silent, but at long intervals one may have a return of symptoms, which marked the active form of their insanity, and be very noisy at night, suicidal or homicidal. Some of them live to a great age. They usually die of pneumonia or exhausting diarrhœa; and the most common finding, *post mortem*, is a very noticeable shrinkage and hardening of the brain substance, with degenerate and destroyed blood vessels.

Cases of Paretic Dementia.

R. Aged 47, salesman for a wholesale house on a salary of $5,000 yer year, began to experience finshings, especially in the morning, with a feeling as though his head was swollen; and at times there was a dull pain in the back of his head. His pulse and temperature were a little above normal. Without warning, his knees would bend and he would fall, often in the street, as well as elsewhere. He was remarkably abstemious in all respects. His family was decidedly neurotic, though long-lived, and he had always been inclined to be emotional. He devoted himself to the care of two sisters, and in fact a large number of relatives besides, and even at the height of his paretic dementia did not falter in his regard for all of them. In a few months after his peculiar knee failure was instituted he began to become exuberant of speech and morbidly optimistic. The drawling enunciation of words symptomatic of paretic dementia also appeared. "He never felt better in his life," and had schemes to extend his business operations on a grand scale; his employers noticed from the tone of his letters and his recklessness with large amounts of money that something was wrong; they therefore restricted his field of operations, and prevented further financial complications. He had an insurance on his life for $10,000, and at a time when his paretic dementia could have been recognized by any alienist, from the unequal pupils, speech peculiarities, grandiose ideas, and extravagant talk, he sought and obtained an increase of insurance in favor of his sisters, to $30,000, and was actually passed as an "extra good risk" by so competent and learned a physician as the late Dr. Charles Gilman Smith. This illustrates how liable even the best general practitioner is to overlook important evidences of insanity. It was remarkable that, instead of developing

extravagance he became penurious to an extreme degree. It was precisely thirteen months from the beginning of the mental symptoms when he was taken with apoplectiform convulsions, during which a physician gave him whisky, a very wrong thing to do, aside from the fact that the patient had never taken alcoholics before. He died suddenly after a maniacal frenzy, at the detention hospital, June 4, 1890.

N. Cashier of fire insurance company, became an alcoholic paretic dement, with delusions of grandeur and prodigality, and he wrote numerous letters calculated to get his employers and others into trouble. He wrote to stockholders, revealing alleged crookedness of the directors, and to the wives of prominent merchants, accusing their husbands of unfaithfulness. At a state asylum he annoyed the management in a great variety of ways, and complaints came to the authorities of his mischief-making letter-writing. He was placed in another asylum, but he managed to elude the watchfulness of guards, and even increased his abusive communications, both in frequency and malignity. He escaped, and, ignoring his wife altogether, he lived openly with another woman, and finally drifted to California, where it is said he fully recovered and engaged in business. The manager of the insurance company wrote the following, just before the insanity inquest: "N. was previously economical, gentlemanly, modest, and industrious, and provided for his wife quite well. After a severe illness he became boisterous, convivial, neglected his business, practically deserting his wife, frequenting low groggeries. Heretofore he had been strictly temperate and had never committed such excesses. He squandered all the money he could raise, and took up with a female for whom he furnished a flat, lavishing everything upon her. He grew abusive to his friends, particularly when they refused him money. He represented himself to be the owner of large shares in a silver mine in Sonora, which is not true. He offered to deed many of these shares to acquaintances, as gifts. He said that the mine was flooded, but that he had ordered pumping machinery in Philadelphia, and he would soon realize millions of dollars." The complete inversion of his character is the most noticeable feature of his malady. He did not have the paretic speech defect, and appeared to be sane on casual inspection. Could the history of this case have been

followed, it might have transpired as one of circular insanity, which at first resembles paretic dementia.

F. A lawyer, was infected with lues in 1874, and two years later constitutional symptoms appeared. In 1889 he was treated at Hot Springs, Arkansas, for cerebral syphilis. His faculties of speech and writing were impaired. He suddenly, while at the Springs, brightened up intellectually, and claimed that he could "see, feel, hear, taste, and smell better and more acutely than before." In 1890 he grew despondent, and cut his throat with a razor, and, not succeeding in this attempt, hanged himself, and was again rescued. He then went voluntarily to a Virginia asylum. He escaped and wrote most abusively of his treatment, for which there was no reason beyond his delusions of persecutions. He had at times the exuberance of mania, mingled with grand delusions. The ordinary physical signs of paretic dementia were present in the drawl, pupillary inequality, and ataxia. The irregularity of mental symptoms could be ascribed to the hereditary complications. He finally succeeded in committing suicide.

S. A livery-stable keeper, dressed himself fantastically, and distributed about $2,000 in gold to persons in the street. He had grand delusions, paretic speech, apoplectiform attacks, and maniacal outbreaks. He had occasional remissions during two years, and was finally discharged from the county asylum. His last remission has been since 1884. He insists upon driving a hack while his wife attends to his stable. Superficially he would appear to have recovered, but the remission may end at any time, or he can now be regarded as a terminal dement.

M. Physician; in 1881 paretic symptoms began; furiously assaulted a bartender with a beer glass; was subsequently arrested for publicly urinating in the street. He had intellectual delusions of grandeur; imagined himself the greatest gynæcologist in the world. His furious outbreaks were followed by convulsions. His maternal aunt was insane. Death occurred in two years after insanity began.

L. A soldier who had been wounded in the sternum and back, twenty years previously, was two years and a half a paretic dement. Memory failed and convulsions began long before his furious outbreaks occurred. He had a remission of about a month in which he seemed to be quite sane, but returned voluntarily to the asylum

six months before his death. Towards the last he complained that he could not get enough to eat; that everything tasted like butter; that his insides were gone; and that flour was a million dollars a barrel; and that everyone was starving. His anæsthesia was general and extreme.

C. Enlisted in 1861, in Co. D, 32d N. Y. Vols. After the battle of Malvern Hill, July 1, 1862, he was in the hospital with typhoid fever, but was exposed to rain and lay on a bed soaked with water. After that he suffered with a pain in his back, which began "below the waist," and gradually ascended to his head. This moving spot was too tender even to be touched. In 1887 the pain became greater than ever, and a year later it was located in the back of the neck. About that time a few symptoms of mental failure appeared with vertigo. During the final three years of the pain it moved more rapidly upwards and suddenly disappeared, and never was experienced again, but his paretic dementia symptoms then plainly developed. He became forgetful, sleepless, with occasional irritability, and was disposed to wander about the streets aimlessly; grew indifferent to his family, but was buoyant and hopeful, and always spoke of feeling well; his speech hesitancy was marked, but there was no pupillary inequality. In an absent-minded way he would appropriate articles of no particular value, belonging to others. Other symptoms of paretic dementia followed, and he died at the Poughkeepsie, New York, hospital, May 4, 1893.

CHAPTER XXIX.

ETIOLOGY.

The causes of insanity are obvious enough in some cases, but in many they are obscure or undetermined; the popular ideas concerning them being as erroneous as they are confidently asserted. One of the commonest mistakes is reversing cause and effect: some prominent symptom of insanity is often taken to be the cause, and very erroneous inferences are drawn. Excesses are consequences of mental impairment oftener than they are contributory thereto; but sensational journalism usually chooses the more discreditable alternative when crimes have been committed, and insists that criminal propensities have led to the insanity, and will not presume that the crimes have been induced by the insanity, when the accused is unpopular; and it picks flaws in every indication of irresponsibility. Liquor in small amounts affects head-injury cases unfavorably, and crime committed by such drinkers is attributed to the drunkenness alone. Inordinate jealousy is a result of alcoholism, but newspaper "scare-heads" pronounce the former the cause of occasional wife murders by drunkards.

Asylum statistics are rendered valueless because the relatives of patients, from various motives, withhold important facts, or by the substitution of fancied causes for the real causes of the mental breakdown.

Ley, of the Prestwitch, Lancaster county, England, asylum, made careful inquiries into causes of insanity, and in his report for 1885 he states as follows: "In about 27 per cent, no cause could be assigned, as nothing reliable could be ascertained in regard to the antecedents of those patients. Classifying the assigned exciting causes as mental and physical, the mental causes constitute 23 per cent, and the physical about 55 per cent. Prominent among the former are worry, anxiety, and domestic and pecuniary troubles. Of the physical, intemperance in drink is pre-eminent, reaching about 25 per cent of all causes; and next to this comes ill-health, epilepsy, and disorders peculiar to the female sex. It

will, however, be observed that a large proportion of cases in which special exciting causes are assigned have in addition strong hereditary predisposition to the disease. At least 28 per cent inherited a weakened nervous organization, too feeble to resist ordinary exposure, and prone to become deranged by various disturbing influences, social, religious, and commercial. The troubles and worries of life are rarely powerful enough of themselves to upset a healthy brain; and drink and other kindred excesses are far more likely to derange the bodily health of the individual and carry him to the general hospital, than to bring him to the asylum. The experience of this and of other asylums points to the fact that the special causes usually enumerated as factors in the production of insanity are, in the majority of instances, secondary to the great fundamental cause, constitutional predisposition."

The 43d Report of the Commissioners in Lunacy, in 1889, contains a table with assigned causes of insanity in 136,478 admissions (66,918 male and 69,560 female) of patients during ten years, 1878 to 1887, in asylums and registered hospitals in England and Wales. The excess of 100 per cent is due to two or more causes occurring in individual instances:

CAUSES OF INSANITY. PROPORTION PER CENT TO THE ADMISSIONS.

	Male.	Female.	Total.
Moral:			
Domestic trouble (including loss of relatives and friends),	4.2	9.7	7.0
Adverse circumstances (including business anxieties and pecuniary difficulties),	8.2	3.7	5.9
Mental anxiety and worry (not included under the two above heads) and overwork,	6.6	5.5	6.0
Religious excitement,	2.5	2.9	2.7
Love affairs (including seduction),	0.7	2.5	1.6
Fright and nervous shock,	0.9	1.9	1.4
Physical:			
Intemperance in drink,	19.8	7.2	13.4

	Male.	Female.	Total.
Intemperance (sexual),	1.0	0.6	0.7
Venereal disease,	0.8	0.2	0.5
Self-abuse (sexual),	2.1	0.2	1.2
Overexertion,	0.7	0.4	0.5
Sunstroke,	2.3	0.2	1.2
Accident or injury,	5.2	1.0	3.0
Pregnancy,		1.0	0.5
Parturition and the puerperal state,		6.7	3.4
Lactation,		2.2	1.1
Uterine and ovarian diseases,		2.3	1.2
Puberty,	0.2	0.6	0.4
Change of life,		4.0	2.0
Fevers,	0.7	0.5	0.6
Privations and starvation,	1.7	2.1	1.9
Old age,	3.8	4.6	4.2
Other bodily diseases or disorders,	11.1	10.5	10.8
Previous attacks,	14.3	18.9	16.6
Hereditary influence ascertained,	19.0	22.1	20.5
Congenital defect ascertained,	5.1	3.5	4.3
Other ascertained causes,	2.3	1.0	1.7
Unknown,	21.3	20.1	20.7

Such compilations have only a general value, and the foregoing can be reduced to: Moral causes, 24.6, and physical causes, 89.7. The physical causes can be further stated as:

Alcoholic toxic,	13.4
Exhaustion,	4.3
Injuries,	4.2
Diseases,	16.7
Heredity,	32.8

At the Chicago (Cook county) asylum, March 1, 1884, there were 285 male, 325 female, total 610, patients; and among carefully made tabulations that I published[1] is the following condensed table of ascertained probable causes per cent operative in a total of 357, of whom 175 were males and 182 females.

[1] Clinical and Pathological Reports of Cases of Insanity, Chicago Medical Journal and Examiner, April, 1884.

Causes could not be satisfactorily ascertained in the remainder, 253.

	Males.	Females.	Total.
Moral causes,	8	19	13.5
Alcoholism,	22	6	14
Inherited insanity,	12	19	15.5
Inherited diseases,	3	2	2.5
Acquired diseases,	28	24	26
Injury,	21	3	12
Puerperal and lactational,		15	7.5
Menstrual derangements,		4	2
Senility,	2	5	3.5
Puberty,	4	3	3.5

A further reduction of these shows that insanity originated mainly in:

Inherited defects in 29 males, 67 females, 48 total.

Acquired defects in 71 males, 33 females, 52 total, from which it appears that females are more liable to inherit, and males to acquire, their insanities.

Broad generalizations, only, are to be deduced from statistics of single asylums for stated or short periods, and calculations based upon admissions cannot be added to those derived from resident numbers. The varying methods of grouping minor alleged causes also prevent their summation from different asylum records.

Moral causes are divisible into the suddenly or gradually effective. Fright, terror, grief, or even joy has unsettled the reason; and the shock of discovering a spouse *in flagrante delicto* has produced a temporary dementia, as though a grave disturbance of the mental equilibrium had occurred which might lead to actual disorganization of structure.

Prolonged moral causes are more numerous and mentally destructive. Worry has an actual disintegrating effect upon brain tissues, and it is not to be wondered at that alcoholics, which stay such progress, are craved, even at the risk of substituting a different sort of degradation.

Abuse by the husband, domestic trouble, grief, with occasional love disappointments, or the mental distress following upon seduction and abandonment are prominent among the moral causes of mental loss among females; while business reverses, pecuniary

difficulties, often caused by treachery of trusted friends, mental overwork, and intense application to business, prevail among males.

Occasionally, solitary confinement induces insanity, but this cause is regarded as most efficient where there is a predisposition to insanity; and many such patients were already insane when punished.

Attention was attracted during 1897 to increased insanity among penitentiary prisoners in New York state, who by a recent law were forbidden to do any work. The enforced idleness appeared to be directly productive of insanity. It had previously been known that prison life often caused melancholia with suicidal impulses. Many prisoners are insane previous to confinement, and predispositions to insanity are justly inferred to be quite prevalent among criminals.

Imitation and suggestion are apparent, and not real, causes of insanity, which already exists in those who are affected by contiguity of the insane, or by hearing of insane deeds. There is a popular notion that alienists, and others who are among the insane constantly, are liable to lose their minds; but careful inquiry shows that this has no foundation in facts. An asylum attendant or official occasionally becomes insane, but the number of such cases is not out of proportion to the number of insane in the total population in and out of asylums.

Prolonged depressing mental influences lead to brain innutrition or anemia, and occasionally actual disorganization follows, depending upon the lack of resisting power.

Nostalgia, or homesickness, is a depressing cause. Soldiers and those who have lived in mountainous regions are more liable to this extreme longing, which is comparable to the disposition of some animals to pine and die in captivity. A true nostalgia rapidly passes away upon a return home; and sometimes a second residence abroad is not accompanied by an attack. The young and country dwellers are more liable than older persons and city inhabitants. In this trouble the appetite lessens until food is refused, digestion is disturbed, and emaciation, and sometimes phthisis, develops. Sleeplessness, brain congestion, rapid weak pulse, suicidal tendencies, with occasional hallucinations and illusions, and, according to Erlenmeyer, incendiarism, infanticide, or

other impulsive insane acts, may be induced by nostalgia. Vengeance characterizes the propensities. He cites[1] the instance of a nostalgic servant who drowned a child of her mistress through emotional derangement, and he remarks upon the necessity of discerning medico-legally the limit between genuine nostalgia and mere ill-will.

Physical causes may directly lead to insanity, or may contribute thereto, or, what is more frequent, be conjectured as etiological or contributory.

Diseases may be severe enough to disturb the mental balance temporarily or permanently; or conditions that follow upon some diseases may subsequently derange brain functions. Inflammation and sepsis attending carbuncle, erysipelas, scarlatina, meningitis, measles, smallpox, puerperal fever, diphtheria, or wounds may slowly or rapidly degrade cerebral tissue, usually by the action of the poisoned blood upon the blood vessels of the meninges and brain, secondarily altering the brain substance.

Locomotor ataxia, caries, or other spinal diseases may extend their destruction to the brain; but these, with rachitis, tuberculosis, and cord syphilis, are often merely due to perversions sufficient to cause insanity as well.

Nageotte[2] asserts that chronic inflammatory changes in spinal syphilis, locomotor ataxia, and paretic dementia, point to a similar origin, and that the differences are merely due to location or preponderance of the inflammatory process in certain parts. The diffuse inflammation involves the whole cord, and may be called vascular or connective, according to the tissues first attacked. A round cell infiltration invades the pia mater, arachnoid, and capillaries of the cord, and attacks the superficial veins severely. The cord substance undergoes secondary alterations. Chorea, hysteria, and epilepsy are also more likely to have arisen from conditions that favor the development of insanity, than to have been the causes of the insanity which occasionally accompanies those neuroses. The fury of typhoid fever should be studied in connection with the statement that fury in an infant is from an abdominal disorder. The permanent mental defects following upon typhoid and typhus are due to impaired brain nutrition. In paranoia sub-

[1] Tuke, op. cit., 879.

[2] Archives de Neurologie, 1896.

sequent to fevers, the frontal lobes are probably involved sequentially. Tuberculosis is related to idiocy, imbecility, and insanity in general, through depraved organization and lessened resistance to disease.

La grippe as a cause of insanity resembles typhoid fever in the derangement of the mind at the onset of fever, in a violent maniacal agitation usually of short duration, or, more commonly, during convalescence, when depressed states of mind are induced, varying from hypochondria to melancholia. Heredity is a factor in most instances, but, in spite of this, recovery from influenzal insanity is the rule; and the duration is rarely more than from a week to a month. There is reason to think that the extremely minute micro-organism of influenza acts as a mechanical irritant directly upon the tissues it invades, attacking the weakest mucous membranes in some, the cord and brain in others.

Debilitating influences may spring from disease or from any one of the multitude of mental or bodily vicissitudes, and either cooperate with other active causes, or depress the mental stability below the safety line. In this way a hemorrhage, whether induced by menorrhagia, metrorrhagia, or a wound, or simple anæmia, however set up, may derange the mind. An overworked servant, who became melancholic, could when first addressed speak English, but later she would answer only in Swedish, her native tongue, and in a few minutes she would fall into an insane jargon, indicating that the blood supply and weak brain could not sustain prolonged effort. Pruritus may become so irritating and undermine the strength as to cause insanity in a few cases, more readily where there is a predisposition, and yet the itching may be so extreme as to be sufficient in itself to disturb the mind. The Chinese are said to punish criminals by tickling the soles of their feet until violent delirium, insanity, or death from exhaustion, follows.

Enfeeblement, however induced, may predispose to insanity, or it may cause it in those already predisposed. Fevers, the puerperal state, the exhaustion of prolonged vigils, over-lactation, particularly while menstruating, continued hot weather, sexual excesses of whatsoever nature, cachexias,—are potent in depressing both mind and body and in destroying their power to resist disease in general.

Suppressed menstruation is usually a mere symptom of general bloodlessness, or of a deep-seated vascular derangement accompanying insanity; and where outbreaks of insanity or exacerbations occur at menstrual periods there already exist other causes for a mental disturbance, and the period merely adds to the deranged blood supply to irritate or debilitate. Severely painful menstruation may require less predisposition to excite insanity.

Heart disease aggravates mental disease, and is seldom a direct cause. Mitral stenosis deranges the entire circulation, and it is not remarkable that the brain should participate therein. Hernia might disturb intestinal and associated physiological workings to such an extent as to result in insanity occasionally. The healing of fistulæ has been observed to aggravate insanity in those already insane, or to cause insanity, or some other new disorder, in those who have been accustomed to the drain. A morbid process of long standing adjusts the entire organism to its conditions, and it is readily understood that pyogenic or serous discharges suddenly suppressed must alter accustomed workings, and, in efforts at readjustment, new and further dangers are encountered. Effete materials, for example, may have found an outlet through a fistula, which after its healing are retained in the blood and lymph to seek other and more difficult channels for elimination.

Physiological events precipitate insanity in predisposed persons. Senility, puberty, the climacteric, and childbirth are instances; the periods lending characteristics more or less to the different kinds of insanity induced. Middle life is the time when there is the greatest liability to insanity, because exciting causes are most frequent during those years of major activity.

Combinations or sequences of causes are frequent. Head injury leads to and is often complicated with alcoholism, and both factors may antedate the insanity. Alcoholism may be engrafted upon paranoia,[1] and mask the original disorder. Physical may precede and combine with moral influences, and a succession of causes may co-operate, one cause leading to another. Worry may induce physical exciting causes of insanity, and the mental and bodily disabilities act together and be equally effective. One patient may have a combination of insanities. The degenerates are especially liable to explosions of mania or melancholia; and a

[1] Eastman, American Journal of Insanity, 1896.

paranoiac or imbecile may have paretic or senile dementia. Mixed insanities, as a rule, are explained by the liability of degenerates to sudden accesses of various kinds of insanity, the phrenasthenia affording soil for more acute derangements.

The development of insanity is sometimes gradual enough to allow cause and effect to be studied, as in cases described by Griesinger, in which the insane person makes "an attempt to explain" to himself, or account for, his own peculiar feelings. Hypochondria may depend upon faulty visceral operations which, so long as the mind is sufficiently unaffected, are properly recognized as "sickness;" but when the mind also participates in this "sickness," then insane delusions are the outcome of attempts to understand the perverted sensations.

Eyestrain is sometimes related to headaches, and may in a few cases, like any other irritating cause, such as pruritus, or the itch, lower the general tone of the system; but epilepsy, insanity, etc., must be latent when such reflex causes produce it. Headaches have been successfully treated by fitting proper glasses to remedy refractive errors; but all headaches are not thus relieved, and for every instance of eyestrain which aggravates coexisting epilepsy or other nervous trouble there are thousands of instances of astigmatism or other ocular defects which go no further than simple eye impairment; and there are also myriads of unreported cases where correction of such eye defects with glasses, or otherwise, has utterly failed to influence the brain or other disease.

Reflex irritation may exhibit itself in a weakness or paralysis of the legs from an urethral difficulty, or a spinal irritation from ovarian disease. Excessive sexual desire may arise from irritation of the spinal cord and parts of the brain, or, in the course of insanities, as one symptom among many of exalted or otherwise deranged function; and the irritation, being unrelieved by masturbation or other excesses, may originate the furies that attend such disorders, but an insanity due wholly to a single reflex cause is as rare as a death due to fly-bites or the single sting of an insect; and insanity apparently induced by slight causes can always be traced to some greater underlying cause which is the real one. It is the entire load, and not the last straw, that "breaks the camel's back."

Poisons in physiological doses continued long enough may

cause insanity; and occasionally temporary mental disturbance may result from large doses of the same poisons. Alcohol, morphine, cocaine, ether, chloroform, chloral, cannabis Indica, bromides, and ergot are the main articles of this nature, though by no means the only ones. Lead and mercury may induce insanity after continued exposure to their absorption. Diseased Indian corn in southern Europe induces what is known as pellagrous insanity, the most usual form being melancholia. Dementia is also an effect, and occasionally mania, and in rare instances circular insanity. A skin disease called pellagra is the most common result of the poisoning.

Carbonous acid gas causes dementia with hallucinations of sight and hearing and delusions of persecution, according to Regis. I have known the carbonous oxide in carburetted hydrogen (common illuminating gas) to cause confusional insanity of a few days' duration. A single exposure to the inhalation of either of these gases suffices to cause death or insanity in many cases, though vigorous efforts with oxygen administration sometimes prevent complete asphyxiation.

Poisons like prussic acid, which overwhelm the system at once, or strychnia and belladonna, which cause convulsions, could not induce insanity permanently, as death would result from overdosing. There are instances on record of overdoses of atropia inducing delirous frenzy; and occasionally maniacal attacks have followed upon the smallest physiological dose, as when a slight amount was instilled into the eye conjunctiva to dilate the pupil. The fact of such susceptibility shows a predisposition to insanity from slight causes, or a remarkable idiosyncrasy. Recovery from the mania occurs at least in a few days, but the phrenasthenic background remains. Quinine given in large doses for intermittent fever caused temporary mania in a head injury case in my practice, but by combining with hydrobromic acid the quinine was safely increased. The injured brain in this instance was not tolerant of the congestive effect of the drug; and where delirium or insanity follows upon quinine administration it is safe to assume that a structural brain defect exists. Bee stings have been followed by periodical melancholia; gout occasions insanity in a few cases; malarial causes have been assigned in some intermittent cases. Rheumatism is probably a more frequent cause of insanity

than is usually supposed; its relationship to chorea has not been satisfactorily made out. I am personally satisfied that rheumatism at times develops katatonia, for (with Dr. Otto L. Schmidt in one instance and Dr. J. H. Hoelscher in another) I saw two cases of the kind at the Alexian Brothers' Hospital, both of which occurred in the course of acute muscular rheumatism, in the summer of 1885. Stupor and the characteristic cataleptoidal state gave reason to predict the mania, and precautions were taken which proved to be timely and fully justified.[1]

Tobacco, with and without adulterations, is of such universal use it is reasonable to suppose that it acts perniciously in health, either exceptionally or unnoticed. It certainly aggravates epilepsy, and in senility and debility depresses heart action. Buccieri[2] found that among two hundred patients with nerve and brain troubles tobacco was pernicious. It may in a few instances be an exciting cause of insanity in the predisposed.

Altitude changes produce hysterical, maniacal, or melancholic conditions in some persons. The ascent of high mountains or ballooning causes nasal hemorrhage, and the suffering of passengers in railway travel across high ranges is well known. Persons susceptible to mental derangement through cerebral circulation changes could thus be easily influenced by change of elevation. Some asthmatics find relief at elevations, and others only at sea level.

Predisposition to insanity may be slight or extreme. It antedates, and usually predetermines, the insanity. The extent of the predisposition is complementary to that of the exciting cause. Assuming 100 degrees of tendencies to insanity, then head injury, alcoholism, syphilis, heredity, etc., may operate to the last degree, inducing insanity direct without other cause. With a small predisposition, say 5, considerable other influence, 95, is required to accomplish mental overthrow; but where the predisposition exists an exciting cause can meet it half-way, as in the case of debility. The last impetus to a fall into an abyss may be slight when on the brink, as compared with what brought one there. An excessive cause may suffice without predisposition. In practice it

[1] Neurological Notes, Western Medical Reporter, Jan., 1886.

[2] Alienist and Neurologist, 1897.

is often difficult or impossible to distinguish tendencies and aggravating matters.

Senility, puberty, the puerperal state, lactation, and the climacteric may be regarded as exciting causes, only, in those who are predisposed to insanity, for otherwise insanity would universally follow, instead of occasionally, upon those events. Nor can age, childbirth, and nursing be called predisposing influences, in themselves; for persons thereafter are not more inclined to be insane than previously. Thus, in many, syphilis is the predisposing, and evolutionary or involutionary changes of puberty and senility are the exciting, causes. In middle life, paretic dementia induced by syphilis has its brain direction imparted by worry, which is the exciting cause in that instance. Age, childbirth, and worry are altogether insufficient, of themselves, to cause insanity, but may cause it in those already on the road toward a mental disaster. Similarly, menstrual difficulties occasion insanity in those foredoomed, and other exciting causes would have been as effectual.

Under favorable circumstances, multitudes may journey through life without exhibiting their latent insane tendencies; but vicissitudes or excitement, whether business, political, or religious, may prove too severe strains upon mental endurance. For example, a Bohemian family claimed to be able to trace ancestry back many generations without an instance of insanity, but every male member who came to America lost his mind "when the least thing went wrong." The uneventful routine of humble life had saved the others, or it had unfitted them for any other sort of existence. One with a great predisposition may escape, under suitable surroundings, where another with less of the latency would become insane when in trouble.

Depressing influences in grief, overwork, or privations often predispose to typhoid fever. The germ of the disease was present, but did not develop until debility gave it congenial conditions. Weeds spring up when soil, moisture, neglect, and other things are favorable. Cholera kills first the drunkards and weak, as insanity finds its victims among them, and, as a feeble child may succumb to a trivial sickness, so there are "hair-trigger" liabilities to mental disease. A recurrent melancholiac successively relapsed after *la grippe*, worry, a pleuritic attack, anemia, and

constipation, and reacted promptly to symptomatic treatment, as degenerates are prone to do. A stumble may break the fragile bones of an aged person, as causes insufficient in themselves may damage others, but not the majority. The weak-lunged person becomes tuberculous where others exposed to the same influences escape; as a frame house may be said to be more predisposed to take fire than one of brick.

Social conditions may predispose to defects of intellect, as stated by J. M. Taylor[1] in a paper on "The Insane Disorders of Childhood:" "Children subjected to long periods of want and exposure are certain to fail of right development, and to bear some stain in the moral senses, if not in the mental acuity. Hence the waifs and strays gathered up by the municipality, or by philanthropic societies, are of questionable mentality and demand unusual care in implanting the seeds of morality and right conduct. These must receive a more primitive form of instruction than others who have enjoyed a better start in life. The fundamental concepts being at fault, too advanced instruction only confuses."

Formidable propensities may, like the gambling addiction, which is practically insanity in many cases, develop upon suitable opportunity; and, in such, a special exciting cause is needed to disclose the lack of mental balance.

Those who are prone to react unduly to pleasant or unpleasant incidents,—the mercurial natures,—seem often to be on the verge of insanity, but something intervenes. There are despondent and exuberant habits, and "mercurials" who travel cycles of happy activity alternating with periods of great depression; but this borderland of circular insanity does not figure in our literature as developing into that insanity.

Causes sometimes follow one another, and the last cause, which may be the least, is accredited with producing the insanity. It is surprising how liable some persons are to head injury; and the accumulated results of several blows to the head may be mental derangement. A first injury, sickness, or other misfortune, may lead directly or indirectly to further misadventure, as Josh Billings declared: "When one starts down hill it seems as though

[1] Transactions Pan-American Medical Congress (1893), 1311.

everything were greased for the occasion,"—and there are instances where numerous causes seem to have acted simultaneously or successively. Liability to adverse circumstances occurs often through defects in intelligence. Predisposition probably exists in 75 per cent of all cases of insanity; and, in the rest, head injuries, alcoholism, or other destructive misfortune may have been the sole cause.

Education (without any attempt at defining what the word would include, beyond generalizing it as almost any kind of thorough instruction affording mental discipline) antagonizes both predisposing and exciting causes of insanity, and, notwithstanding instances of overstudy or overtaxation of the brain causing a mental breakdown, mental exercise in rational directions cannot be charged as a cause of insanity. The history of the multitudes of asylum patients will show that intellectual pursuits have rarely been suspected of influencing insanity except for the better. A healthily exercised organ does not break down because of such proper exercise. The contrary is true,—that disuse or abuse enfeebles any bodily organ, including the brain.

Idiosyncrasy is in part explained by some cases of inherited mental instability more liable than others to become alcoholic, or have cerebral syphilis, and also to sustain brain lesions by accidents due to recklessness or insufficient regard of consequences. That there should be a difference in individuals afflicted by the same causes of mental trouble is no more remarkable than that pleurisy should occur in one and pneumonia in another, or that tonsilitis should be fatal occasionally, while merely troublesome to the majority. A cold precedes hay fever in one, nose bleeding in another, laryngitis or bowel complaints in others, or it may kill a patient with pulmonary phthisis.

Race. Spitzka[1] made a most elaborate tabulation from personal investigations in New York city asylums, of the nationalities of the insane, and concludes his contribution with the summary: "On the whole, the different forms of insanity occur in nearly the same proportions in the Anglo-Saxon, Teutonic, Celtic, and Hebrew races. Paretic dementia is most common among Anglo-Saxons and least common among Negroes; melancholia is

[1] Journal of Nervous and Mental Disease, Oct., 1880, 613.

most common among German peoples; the tendency to terminal dementia is greater in the Anglo-Saxon than in the German or Celt; and the forms dependent upon hereditary taint are most common among Hebrews. With this it is in accord, that, since the termination in dementia and the influence of heredity are the factors which chiefly cause an accumulation of the insane population, the Hebrew and the Anglo-Saxon should have the highest proportion insane of their respective populations."

Civilization, while not responsible for any general increase of insanity, influences its forms to some extent. Idiocy and cretinism appear to be diminishing, while insanities due to alcoholism and syphilis have increased, paretic dementia especially. Savages destroy malformed offspring, and are themselves rapidly killed off by the vices and the diseases of the civilized. Gradually acquired toleration of diseases and of some poisons passed through a stage within the memory of many now living, when at first physical effects were most frequent from such causes. Anti-syphilitics and the elimination of the grosser forms of drunkenness, at least among those most civilized, is now succeeded by augmented numbers of those who are mentally affected by syphilis and alcohol.

Regis thinks that the apparent increase of insanity in France from 4.96 among 10,000 of the population in 1835, to 22.50 per 10,000 in 1876, is due to greater census accuracy. It is asserted that the number of insane negroes in America in 1860 was one to every 5799, and that in 1880 the proportion was one to 1096, bidding fair to rise to one to 500, or about the ratio of insane among the white population; but while there may have been some increase, no reliance can be placed on the figures mentioned.

Emotionalism finds exercise in religious, mystic, erotic, or political excitement, principally among the weak-minded. Children, especially those in fashionable boarding schools, where they are subjected to artificial suppression of the reasoning and cultivation of the emotional faculties, hysterical females, and those at the menopause and puberty, are subject to emotional overstrain. The connection between erotic and religious delusions is well known.

During the communistic battles in Paris, following the Franco-Prussian war, the "political insane" paranoiacs, and others of

more emotional development than judgment, were attracted to the barricades in such numbers that their deaths had a marked influence on the decrease of admissions to French asylums for years following.

Wars and political and religious excitement merely give color to pre-existing insanity, and are seldom causes in themselves. Practically there is no "religious insanity" or "political insanity."

Sexes. Idiocy preponderates among males; but, otherwise, mental ailments of all kinds are about equally divided between the sexes. Heredity influences females more than males, and asylum populations contain more chronic female insane than male, as the latter recover or die sooner, and women can endure house life better than men.

English asylum statistics for the ten years from 1881 to 1890 show that the percentage proportions of insane males were 5.23, and females 5.22, to 10,000 of the population in general, calculated on admissions, with a slight tendency for more women than men to be insane in late years. In 1881 the proportion was 5.25 males and 5.12 females, and in 1890 it was 5.55 males and 5.71 females per 10,000.

Ages differ as to liability to insanity. Thurnam states that there can be little or no doubt that the period of life most liable is that of maturity, or twenty to fifty or sixty years of age. From thirty to forty the liability is greatest, in England, and it decreases decenially from thirty to sixty gradually, and rapidly thereafter. In America twenty to thirty appears to be the most liable period.

Seasons. In France the number of insane increased from January to June, with a decrease to October, when a considerable increase occurred. Ogle records that among 42,630 suicides in England the minimum number was in December, and the maximum in June. Some cases of periodical insanity are influenced by changes of the seasons. Circular insanity, for example, passes from the melancholic stage of winter to the maniacal stage in the spring or summer, in some instances.

Marriages lessen tendencies to insanity, or the insane marry less frequently than the sane. Defectiveness, however, is mutually attracted and often mated. Widowhood is acknowledged by

alienists to have a positive influence on the development of insanity.

Professions. Soldiers and sailors are most numerous among the insane in England; paretic dementia being especially frequent among them. Lawyers, ecclesiasts, physicians, and writers follow. Saloon keepers afford a large contribution to the alcoholic insane in America; and other occupations occasionally induce insanity by exposure to extremes of heat and cold or to poisons.

Heredity. Until the number of sane persons who have had insane or neurotic ancestry is at least approximately ascertained and compared with transmitted cases, the true bearing and significance of heredity will be obscure. Were defects invariably handed down from ancestors, everyone would be defective, in the gross sense of the term. We inherit as well from our healthy ancestry, and the result is a greater tendency to the obliteration of departures from a normal type. Insanity would be the rule, instead of the exception, if its taint were always inherited. Nevertheless, heredity is the foremost of predisposing causes. The entire matter is too vast to be more than summarized in this work.

Heredity includes consideration, not only of insanity, but physical peculiarities, diseases, relationship, tendencies, etc. Though we may, with Marcé, find antecedents of some kind in nine tenths of all cases of insanity, that fact could be understood only by ascertaining the antecedents of similar numbers of healthy individuals.

Immediate heredity is most frequent in insanity, and consists in defects inherited from parents.

Mediate heredity passes by the parents and is from grandparents.

Simple heredity is either paternal or maternal. Esquirol regarded the latter as the most important, and Baillarger claims it is three times more common.

Cumulative heredity is from several generations.

Double heredity comes through both parents.

Direct heredity is in the line of descent.

Collateral heredity considers peculiarities in a collateral family branch.

Homochronous heredity is when the insanity appears at the same age in ancestor and descendant.

Anticipatory, if at an earlier age than in the ancestral instance, according to Cope's law of acceleration in the appearance of transmitted traits or features.

Similar or homologous insanity may be inherited or the peculiarity may be—

Dissimilar or transformed, modified or changed, from the ancestral form, as when epilepsy in one generation is changed to insanity in another, or where tuberculosis in one generation is followed by idiocy or imbecility in another.

Progressive heredity is intensification of defects in successive lines, such as intermarriages occasion.

Regressive heredity is where dilution occurs, with a tendency toward disappearance of a complaint that had been transmitted.

Reversions occur, as a child may resemble no one in two previous generations, but bears a resemblance in feature, form, and mentality to a great-grandparent. Reversion may be to a healthy or diseased type, and often the similarity is confined to one sex.

Skipping peculiarities in one generation does not eradicate transmission to another and remoter set of descendants, and this is called "latency." The attributes of one parent or both may be inherited, or a child may develop peculiarities of one parent early in life, and, later, those of the other parent.

The principal tendencies of transmission are the nervous, the inclination to brain disease, the tendency to pure insanities of the vesanic type. The first and second are interchangeable, and to some degree the first and third; but a vesanic insanity neither implies heredity nor tendency to brain disease in all cases.

All members of a family are not affected similarly by an hereditary taint. Dissimilar types may appear, and many may escape altogether.

Instabilities may be peculiar to successive generations, causing individual members of families to fall victims to different disorders. The mistake of supposing that drunkenness is inherited arises from the fact that the mental, nervous, or other physical instability which led to drunkenness in the parent has been inherited, and the same frailty has led to the identical failing in the offspring. Had alcohol been absent from one or both generations, the nervous trouble might, but would not necessarily, have been present and manifested itself in some other way. Similarly,

tuberculosis is not inherited, but the weakness which may enable the tuberculosis to flourish is often, but not invariably, transmitted; and subsequent circumstances determine whether phthisis or cancer or some allied disease develops in the predisposed person, or, what frequently happens, whether the one with tuberculosis tendency may never develop the disease at all.

The census tables of the English commissioners in lunacy state that heredity exists in 20.5 per cent of ten years' admissions; but this is altogether too low an estimate, owing to the reluctance of relatives to admit the taint in many cases, and the mistaken ideas as to what constitutes heredity.

36,762 insane and idiots were enumerated in England and Wales in 1859, and in 1885 there were 79,704, according to official reports. In 1859 there were 9,310 admissions to asylums, and in 1885 the admissions were 14,774, an increase of 13 per cent. The asylum admissions for ten years were 5.20 per 10,000 of the population, and in 1892 there was one lunatic or idiot to 335 of the population. Pauper lunacy was rated in 1859 as 1 to 578, and in 1889 as 1 to 384; the whole number of paupers being, in 1859, 1,722,548, of whom 1.85 per cent, or 31,782, were insane or idiots; and the increase in thirty years to 9.25 per cent of insanity and idiocy among paupers was ascribed to a reduction in the proportion of paupers to general population, probably through considerable emigration.

The number of first attacks of insanity per 10,000 of the population living was 3.29 on the average.

In 1830 the number of insane in Italy was estimated as 1 to 3,785, and in 1890 as 1 to 1,350.

Regis gives the following figures from the French census:

In 1835	there	were	16,538	insane,	or	4.96	to each	10,000
1841	"	"	18,367	"	"	5.37	"	"
1861	"	"	46,357	"	"	12.95	"	"
1866	"	"	90,709	"	"	23.82	"	"
1876	"	"	83,012	"	"	22.50	"	"

But in both England and America the apparent increase of insanity is ascribed to increasing accuracy in census returns; and if insanity in general is increasing the rate is very slight.

When Paris had a population of 600,000, in 1801, there were

945 insane maintained at public expense, and in 1881, when the population was 2,237,928, three times as large as eighty years before, the insanity was nine times greater. Ideas as to what constitutes insanity have undergone changes, and many who were imprisoned as rogues or vagrants, or neglected, are in this period recognized as insane and cared for as such. And more than local figures must be considered in making estimates, for often erroneous conclusions would follow if they were taken by themselves. The insane rate between the years 1860 and 1870, in California, was enormous, owing to the number of degenerates who flocked to the gold fields there.

CHAPTER XXX.

PROGNOSIS.

The chances for recovery are best in ordinary mania, melancholia, transitory frenzy, post-febrile, stuporous, and confusional insanities. The majority recover from climacteric insanity. Prospects of recovery from puerperal, lactational, hysterical, phthisical, masturbatory, syphilitic, rheumatic, and gouty insanities are approximately about equal to their liability to become chronic and pass to the deterioration of terminal dementia. But few recover from hebephrenia, alcoholic, and periodical insanities, or from paranoia or the cerebral neurasthenia obsessions. Paretic dementia and delirium grave are seldom other than fatal. Idiocy, imbecility, traumatic insanity, senile dementia, epileptic, atheromatous, and organic brain disease insanity are incurable, though exceptional instances of imbeciles suddenly developing mental growth, or of recovery from these almost hopeless forms, and occasionally even of a terminal dement "recovering," have been reported as rare incidents, though relapses are usual in the latter cases. Thurnam[1] claimed that after an asylum had been established for twenty years a proportion of recoveries less than 40 per cent of the admissions is too low, and over 45 per cent is too high. He further states that of ten persons insane, five recover and five die sooner or later during an attack. Of the five who recover two remain well the rest of life; the other three have subsequent attacks during which two of them die. Tuke comments on this, with a restatement that of eleven insane, six recover and five die sooner or later in an attack. Of the six who recover, not more than two remain well during life; the other four have subsequent attacks, in which three die.

Granville[2] reduced forty-six years' statistics of the York Retreat, and calculated on the basis of the mean number resident 54.6 per cent of recoveries, the Wakefield institution numbering 50.6 per cent. The proportion of recoveries to admissions for

[1] Statistics of the Retreat, 123.

[2] Care and Cure of the Insane, I., 73.

the same period was 46.9 per cent, and at the Wakefield 44.2 per cent.

The recovery rate increases with the age of the asylum. At the York Retreat, the first five years, it was 26.1 per cent, and in forty-five years 47.8 per cent.

Sir A. Mitchell[1] calculated the recovery rate of 1297 patients for twelve years as 47.3 per cent. Readmissions and repeated recoveries of single individuals would raise this to 65.6 per cent. 68.3 per cent of those admitted were either living or had died insane, at the date of the report. 36.6 per cent died insane. 31.7 per cent were still alive and insane. 31.7 per cent died sane.

The ten years' English, 43d, statistical report shows that more women recover than men, and more males are admitted than females. Based on the admissions, 35.47 per cent of the males, and 43.81 per cent of the females recovered.

The probability of recovery is inversely to the length of duration of the disease. When under care within three months of the first attack the chances for recovery are 4 to 1, and less than 1 to 4 if care is delayed a year. Thurnam stated in 1844 that the proportion of recoveries and the mean annual mortality rate increased with the age of the asylum. The prospects of recovery and the liability to death are greatest in the earlier periods of insanity. Sudden recoveries are not so favorable as is the gradual return to mental health, because heredity or degeneracy is indicated by sudden onsets and recoveries, and hence relapses may be expected; but when the insanity is slow to develop, and recovery takes place gradually, or by oscillations, with temporary relapses lessening in duration and severity, the prospects for full and permanent recovery are better. But the more protracted the onset the longer the duration of the insanity, and a sudden beginning means, usually, a sudden termination, which may be a permanent one.

Maternal heredity is more potent than paternal in the transmission of insanity and a tendency to fatal termination, and the insane daughter who resembles the insane mother, and the insane son who resembles the insane father, are less likely to recover than if the resemblance is opposite to the sex, and most likely to

[1] Journal of Mental Science, 1877.

recover where there is no resemblance and the sex is opposite. But resemblance entails liability irrespective of similarity of sex. With both parents insane the chances are against recovery.

At the Middlesex and Surrey asylums one fourth of all who recovered did so in from six to twelve months; one eighth in the second year; one half of the remainder in the third year; and 94 per cent of those who recovered did so in the first two years.

The duration of mania and melancholia is seldom less than one month, and recovery usually takes place between the second and the eleventh months. Chronic insanities may last over forty years.

Predisposing causes, such as heredity, lessen the chances of recovery. The young and females are more likely to recover than the old and males, more especially as there are few or no paretic dements under twenty-five and fewer female paretics. It is the rule that the young of either sex recovers from acute insanities, but a second attack lessens the probability of permanent recovery. Recurrences are less hopeful unless the intervals grow longer and each succeeding attack is milder. At the climacteric the recurrent insane frequently deteriorate or make good recoveries.

The insane ear is an ominous indication, but temporary recoveries have taken place even after this deformity has appeared.

Improvement in bodily weight and health contemporaneous with the mental improvement is a favorable indication, and it is a hopeful sign if the stiff unmanageable "insane hair" becomes soft and glossy. When the weight increases and the general health and strength improve without mental restoration at the same time or soon afterward, the probability is that the insanity has become chronic.

The poor have better chances for recovery from insanity than the rich. The records of public asylums show a far higher percentage of recoveries than those of private institutions for insane. Wealth attracts pretentious and ignorant charlatans who are most interested in the pecuniary results to themselves, while the medical and scientific animus is much more largely engaged in the care of the poverty stricken.

The creation of a pathological language in new senseless words, the adoption of a grotesque costume, of special attitudes, and particularly the disposition to gather rubbish, all point to incurability.

The chances for recovery are best in the first six months, less in the next six months, still less in the second year, and in the fourth year almost nothing. Relapses are often due to adverse circumstances, which, if avoided, would have left the person fully restored.

From the English lunacy reports for ten years ending December 31, 1888, the number of deaths among the mean number resident were, in percentages:

Asylums, - - - - - - - - -	9.70
Registered hospitals, - - - - -	6.56
Provincial licensed houses, - - - -	8.41
Metropolitan " " - - -	10.83
County and borough asylums, - - -	9.95
Naval and mil. hosp. and Royal India asylum,	6.61
County and borough Yorkshire asylums,	12.09

The death rate fall in recent years is shown in the reports of the Yorkshire county and borough asylums, according to Noel Humphrey,[1] in the following figures: 1818 to 1867, 13.87 per cent; 1868 to 1877, 11.42 per cent; 1878 to 1887, 11.04 per cent.

Humphrey further compared the death rate in the population of England and Wales by decades for thirty years: 1859 to 1868, 10.31 per cent; 1869 to 1878, 10.17 per cent; 1879 to 1888, 9.55 per cent.

The death rate among idiots and imbeciles in the Metropolitan district asylums, compared with the general mortality, was higher for the ages of twenty to forty, six times; forty to sixty, three times; sixty to eighty, nearly three times; eighty and upward, over two times.

The mortality on number resident in asylums in England, 1776 to 1844, was 12.12 per cent; for the 6 years ending 1879 it was 10.26 per cent; for the 6 years ending 1885, it was 9.30 per cent.

The mortality of all English asylums as compared with that of the general population at the ages of fifteen to twenty-five was about ten times higher among the insane, and from seventy and upward two and one half times higher, and increasing with age. American statistics are not available, owing to lack of uniformity in the methods of reporting by the different asylums.

[1] Proceedings of Royal Statistical Society, Feb. 18, 1890.

CHAPTER XXXI.

PATHOLOGY.

The relative frequency of the main forms of insanity is variously estimated by different statisticians, who employ different methods of calculation, and consequently reach widely different results. Therefore the averages from their tables are of little value.

The 43d report of the English Commissioners in Lunacy on the admissions of 14,336 patients into all institutions for the insane in the year 1887 divides the percentage as follows between the forms of mental disease recognized by the board:

	Male.	Female.	Total.
Mania, - - - - - -	46.1	52.1	49.1
Melancholia, - - -	21.1	28.6	24.9
Dementia, ordinary, - -	13.9	8.3	11.1
" senile, - -	4.7	3.4	4.0
Congenital insanity, - -	6.3	4.2	5.3
Other forms of insanity, -	7.9	3.4	5.6
	100	100	100

The morbid anatomy found in autopsies of those who die insane is usually only indirectly connected with the pathology of insanity. For example, the brains of epileptics sometimes tell of congestive storms that have resulted in chronic inflammations and leucocytic exudates organized at the brain base, with adhesions of membranes to brain tissue; but even when a tumor is discovered in the brain, which has acted as a so-called irritant, the cause of epilepsy is still unexplained, for all such states may be found in other insane cases, and occasionally, in a lesser degree, in the brains of persons who have not been insane. In a general way, thickened cranial bones and adherent dura mater indicate past subjacent irritation and subacute inflammatory states. Chronic mania leaves evidences of vascular engorgements and excess of nutritive plasma in places. The skull may be eroded on its inner table by pressure of the convolutions, or bony bosses or exostoses may project into atro-

phic brain portions; frontal hyperostosis is most frequent among the osteal degenerations, and thickening of the left frontal bone often accompanies degraded mentality, especially of the congenital sort. Bevan Lewis[1] records that in 1,565 fatal insanities the cranial bones were thickened in 404 (25.8 per cent), indurated, dense, and heavy in 523 (33.4 per cent). In senile atrophy the bones are diminished in thickness, strength, and weight. Thickened bones, however, are not necessarily associated with a corresponding atrophy of the brain in adjacent places.

The dura mater was found to be adherent to the bones in 15 per cent of those dying insane at the West Riding Asylum, and universal adhesions were noted in 5.7 per cent of the autopsies. The frontal region was usually the site of attached membranes, occurring internal to the frontal bosses in 10 per cent; the parietal and sagittal adhesions being next in frequency. In 1 per cent the dura mater was thickened. A condition called pachymeningitis interna, by Virchow; false membranes or hemorrhagic cysts, sacculations of blood often from ruptured blood vessels into the dura (hematomas), with capillary ruptures more or less diffuse or circumscribed,—are observable in some cases. A rusty discoloration of the dura along the course of the superior longitudinal sinus I noted in the brains of alcoholic cases at the county asylum.

Sometimes there are ossifications of parts of the dura, particularly of the falx cerebri.

The pia mater is frequently opaque, with a milky appearance, but this is not peculiar to insanity, for it may be seen in middle life, and is common in the aged. Outbursts of senile excitement, alcoholism, and meningo-myelitis leave traces, here and there, in the outer brain surface. Fungus hematoides, or aggregations of hypertrophied aberrant blood vessels project occasionally into the brain tissues. Pacchionian bodies may be numerous.

Arachnoid opacity is found in 50 per cent of the insane *post mortems*. It is said that the cerebro-spinal fluid of the chronic insane is acid, while in the sane it is alkaline,—an important finding, if fully verified, in the future chemical physiology bearings of insanity, which is destined to supersede much of the routine histological methods of the past.

[1] Text Book of Mental Diseases, 433.

Hemorrhages into the vertex and lateral cerebrum, especially of the left hemisphere, and pia mater extravasations of various extents, are common *post mortem* findings. Often bright red patches are irregularly distributed in the brain and medulla, indicating the limits of independent vascular tracts or plexuses; and in acute insanities they are products of recent furies. Rosy zones are observed at the junction of the white and gray matter, and after epilepsy a mottling of the medulla is frequent. Blanched arborizations of brain regions mark parts that have been locally deprived of blood. Most often the general malnutrition and blood poverty leave a uniform pallor of the brain, which at West Riding was observed 841 times in 1,565 autopsies. Patchy pallor often marks out areas of the cortex, and a uniformly diffused pallor was associated with many cases of melancholia. Engorged arterioles were common in other insanities. In 853 autopsies the consistency of the brain was increased in 98, and was decreased in 463, being unchanged in the remainder.

Atrophy of the brain may be general, partial, or localized; or spotted sclerotic parts may be seen. The "miliary sclerosis" in common with "granular conditions" of the medulla and cortex, and precipitates of brain constituents, are caused by the preserving liquids used, especially with alcohol.

Nerve cells show evidences of pigmentary and general disintegration and developmental arrest; plexuses of nerve fibres are destroyed, particularly by such agencies as worry. Disuse is also potent in lessening brain structure. Shrinking of the brain occurs in the aged, and is often extreme in the chronic insane. The frontal lobe in terminal dements is frequently reduced greatly, and a bag of water fills the space between it and the membranes next to the skull; a compensatory hydrocephalus, often erroneously described in ancient books as water on the brain which "caused the insanity."

Changes in the blood vessels are numerous, both in their structure and contents. Aneurisms, degenerations, thickenings, obliterations, dilations, tortuousness, fibrinous contents, ruptures, etc., —are among variations from the normal.

Deformities in development are numerous in the congenital cases. Sometimes the cerebrum of one side and the cerebellum of the other side, or the corpus callosum, or other large parts, are [illegible] in size, or nearly absent.

In 100 autopsies, Spitzka estimates that some sort of pathological findings occur in 30, slight morbid conditions in 30 more, and nothing in the balance.

In paretic dementia the ravages are constant and definite, and justify its classification with destructive brain diseases. Its pathology may be summed up as a progressive degradation of both vascular and brain tissue in a somewhat orderly manner.

Occasionally, morbid conditions observed in other parts of the body have given rise to the term "sympathetic insanities," on the assumption that the irritation through splanchnics and other visceral nerves has been propagated by disorders remote from, but reflected to, the brain.

Two morbid conditions may coexist, and one may not be the cause of the other; both may be due to the same cause, as constipation and insanity from depraved nervous workings generally. Cause and effect are often inverted as in Vix's symptomatology of "insanity due to worms in the intestines." He stated that such persons were inclined to eat filth, and it did not occur to him that the worms might thus have been introduced into the body, and hence be an effect of previous insanity. Esquirol thought that worms were a frequent cause of insanity, recording 24 cases among 144 patients; but in these and the cases mentioned by Legrand du Saulle, of larvæ in the frontal sinuses, attended with mania and epilepsy, the relationship is not clearly made out as more than coincidence, though irritating influences may be potent enough in many to cause insanity or epilepsy.

Guslain tried to make out cases of "herpetic insanity," but herpes is a nervous affection, and may have been but an expression of the debased nervous centers, or coincidental herpes with insanity. Hammond reported a cure of melancholia by evacuating an hepatic abscess, but the rarity of such etiology leaves much to the imagination as undetermined.

Hufeland assigned a prominent part to abdominal disorders, in the pathological inception of mental derangements, and Friedreich held that disorders of almost any abdominal organ might cause insanity. Normal digestion influences certain persons intellectually, and costiveness has an effect upon the brain. Guslain speaks of a woman who when constipated had visual and auditory hallucinations. The blood pressure in the head is in-

creased by neglected bowels, and such instances are accounted for as indirectly effected cerebral congestion. Hypochondriacs and the irritable were shown by Holtorff to suffer from duodenal catarrh. A thorough evacuation often improves many symptoms in the insanity. Loiseau claimed that organic lesions of the liver were rare in the insane, but that inflammation was not infrequent. Gall-bladder calculi were common in lunatics, according to Wiedmann and Greding, but probably no more so than in normal individuals. The spleen and pancreas gave negative results upon examination. Bonet, Greding, S. Pinel, and J. A. Campbell insist upon peritoneal inflammation as a cause of mental disease.

Cases of suppressed menses and recovery of mentality upon the return of the discharge have been taken as evidence of connection between menstruation and insanity; but absence of menses is merely a symptom which disappears with other symptoms. The menses are restored because the normal condition in general is restored, but *post hoc ergo propter hoc* has no warning for the illogical.

Heart disease, uterine disorders, and digestive troubles have been alleged as causes, but, at least in the majority of cases, there is little proof of the allegation.

Reflex insanity is sometimes asserted on the basis of irritations conveyed to the brain, and the physiological warrant for it seems apparent in preputial adhesions, which in very rare instances aggravate epilepsies, eye-strain causing headaches in some cases; and some narrow-minded persons ascribe all mental disease to reflex irritation from single parts of the body. The anal sphincter affords profitable opportunity for malpractice by charlatans on this account. Some oculists hold out the alluring announcement that the eye-muscles are responsible for all insanities and nervous diseases. They usually charge large fees for their promises of cure. There is a modicum of truth in the matter of reflex irritation which should be wrested from charlatanery. Scherner attempted an interpretation of dreams and hallucinations as visceral disturbances. Visions of water, he claimed, indicated a full bladder; looking over a dizzy height in dreams resulted from stomach disturbance, and hunger caused dreams of banqueting.

Irregularities of blood supply in the brain may be induced by peripheral causes; and, according to the brain peculiarities, such

fluctuations would induce dreams in the sane and hallucinations in the insane; the musician would be more likely to have auditory, and the artist to have visual, hallucinations or dreams.

Diathesis may tend to insanity, as well as disease in general, because of lowered or perverted nutrition. The syphilitic dyscrasia may lay the foundation for mania or melancholia, as well as for the special diseases ascribed to it; and tuberculosis and trophic disorders wait upon mental disease, while in some cases the insane enjoy remarkable immunity from epidemics. Thus *la grippe* has been known to afflict the officials and attendants of certain asylums, while the patients were unaffected, as though chemical changes in insanity conferred insusceptibility.

The wasting and atrophic states point to the results, if not to the foundation, of many insanities. The marasmus and frequent deaths from the "exhaustion of insanity" are also significant of the perverted and failing nutrition.

Rayner describes the insane diathesis as a deterioration of the brain, inherited or acquired, indicated by peculiarities of function, by tendencies to mental disorder, and as often associated with stigmata. Latency transmits to offspring a neurotic condition upon which insanity may develop from apparently insufficient causes. The ability of the central apparatus to withstand irritation will govern the strength of an ingoing impression required to disturb mentality. A certain degree of obtuseness may need a great stimulus, where an irritable brain will react to trifles. Ordinarily an unusual irritation from the periphery will result in central excitation, or a lesion may operate directly upon a center to excite it; and in the instance of priapism by a lesion in the cervico-dorsal cord, an efferent or motor effect is produced. Thus irritability may be induced peripherally or centrally, and be afferent or efferent. An abdominal complaint may distract the brain, or the deranged brain may induce insane muscular activity, often automatically; and in katatonia I have long believed that the disease, probably a toxemia, forces the muscles into constrained positions, and the enfeebled mentality makes insane interpretations of the reasons for the stagy and belligerent, or other, postures.

Then, derangements may originate or be secondarily induced in the brain, so that causes of insanity may begin elsewhere than

in the brain, or that organ may subsequently become the seat of the cause; but in every event the brain is disturbed in insanity, whether the origin of the disturbance is there or not.

Postures of the insane are often the result of and indicate clearly the cortical localized origin of constrained positions; doubled fists, flexed or everted arms, heads turned or leaned to one side; and the influence at work upon the brain to cause such positions may also be the source of the mental derangement, except where a lesion has extended to the cortex part involved in the creation of the posture, in which case the indication is one merely of a pathological condition in the course of chronic insanity.

A nutritional fault is at the bottom of all insanity, the causes of which have been briefly classified as nondevelopment, obliteration, or perversion of function. The nutritive foundation may not only differ in the kinds of insanity, but what is true of one stage may not be of another in the development of any disease; and a march of symptoms corresponds often with very radical differences in pathological conditions in the commencing, middle, and final stages of many human complaints, and are further changed as there is tendency to recover or succumb.

With a resisting power of 100, predisposition may lessen this all the way to, say, 1, and an inferior exciting cause may abstract that 1; or if the resistance is lessened to 50 an exciting cause with potency of 50 may take away all resisting power. The predisposed go to meet the insanity, and the exciting causes to meet the predisposed. An exciting cause with the strength 99 may fail to upset the mind of one whose resisting power is 100. Given an individual built like Oliver Wendell Holmes' "one-hoss shay," with resisting power equal in all parts, and disease would fail to centralize unless specifically addressed to a part and overwhelmingly potent to destroy. Seeds will not grow without soil, and a weak brain will succumb to an influence scarcely affecting a stronger one.

Efficient energy is proportionate to the strength of the machine, but the strongest engine may have a weak point, which work to full capacity will eventually find and break, or action will be disturbed so that the mechanism is spoken of as lame, hysterical, or crazy. Working ability is conserved where the strain is

reduced to a minimum. Could forces be so distributed that stresses would fall where they could best be sustained, or parts be promptly strengthened where needed, individuals and machinery would not wear out. An inferior device subjected to reasonable wear and tear accomplishes better results, *cæteris paribus*, than where effort and capacity are disproportioned. The analogy is further useful in comparing a functional disorder to a faulty supply or quality of lubricants, fuel or water, and an organic trouble to broken machinery. Vesanic delirium, mania, and melancholia caused by a temporary nutritive derangement, differ similarly from insanities due to imperfect organization.

Perverted circulation may affect mental operations inappreciably, or it may be a prominent factor, if not the prime one, in simple mania. It is not necessary to suppose that very much, if any, qualitative change in blood composition has occurred. Possibly a quantitative increase in one or more constituents takes place, or the brain tissue is more rapidly oxidized through chemical reciprocal connections with the blood-vessel contents. In the "hypomania" of Mendel, or "sub-acute mania," as Regis calls it, the rapid interchange of molecules between blood and brain may occur in a lesser degree as compared with mania proper; and the fact that this hypomania arises oftener than simple mania from heredity proves a predisposition that allies it with other constitutional "deformities," such as hysteria or some cases of epilepsy; and probably the hypomaniac is more nearly related to the phrenasthenic branch of degenerates than to these. The faculties are exalted, the imagination is overstimulated, endless and erratic schemes are projected only to be abandoned. Patients in this state "have produced useful inventions, solved important problems, brought out valuable works,—in a word, have shown themselves more intelligent and productive than they had ever been before."[1] The duration and outcome are essentially those of simple mania, and in fact may be in some merely vesanic, in which case heredity and degeneracy may not be antecedents. Cases that become chronic or pass to agitation, which is absent in hypomania, may be of the phrenasthenic stock, as indicated by the intellectual excitement changing to periodical or other forms of insanity, or proving to be the prelude to paretic dementia.

[1] Regis, op. cit., 158.

Metabolism merely seems to be more rapid in mania proper, with waste so nearly amended by repair that not until the convalescent stage is reached does fatigue show itself, and then it is often surprisingly less than the expenditure of energy would appear to warrant. A feebleness of the co-ordinating brain mechanism, and a slight memory difficulty (oftener in respect to the discrimination between what was subjective and what had actually been experienced), usually follow. In the young this swiftly passes away; but past middle life the debility from a few weeks of maniacal excitement may require two or three years of rest.

"Cerebral congestion," a definite enough syndrome when restricted to a delirious or furious condition with supervening collapse, which occasionally occurs among the number of other hyperæmic states of brain circulation, seems to be a quantitative circulatory disorder. Stuporous and confusional insanities, and even syphilitic dementia, are cerebral vascular impairments, the latter probably from infiltrated membranes, arterial walls, or precincts. Readjustment of circulation to a great degree occurs at puberty, during lactation, and the climacteric, and accounts for the physiological mental peculiarities of those periods, which occasionally amount to a pathological degree. The headaches of head injury are often local circulatory disturbances alone, and the irritability and sleeplessness are similarly accounted for. Hypochondriasis is so often a functional disorder that some impairment of the gastro-intestinal, cardiac, arterial, or venous apparatus may be safely inferred, though either primary or secondary impairment of the sympathetic and cerebro-spinal nervous systems complicates the disorder. Sexual excesses like other debilitating influences tend to derange circulation, and when they occur at or before puberty the damage entailed upon mental processes is likely to be more severe, because the formative cerebral and cerebro-vascular systems are more easily disturbed than fully formed parts.

Whether the known transudation of carbonic acid into the intestines in hysterical bloating may justify the supposition that this gas either within or without the circulation causes arteriole contraction, or that, as Haig and other writers incline to believe, uric acidæmia is the irritating cause of arterial tension, it is a fact that during hysteria the bloodvessels are constringed in some

parts of the body, as when a leg can be punctured or incised bloodlessly in hysterical anesthesia. Peripheral vascular states often coincide with those in the nervous centers innervating such parts; at least there is a vaso-motor relationship between bodily areas and their brain centers, for in hemiplegia the paralyzed limbs are imperfectly supplied with blood.

If the constriction of vessels, which occurs erratically but demonstrably in hysteria, be extended to the brain, most hysterical phenomena may be accounted for. Hysterical hemiplegia might follow from a Sylvian artery constriction cutting off the blood supply, or greatly lessening it, to the arm and leg centers of the brain. Hysterical aphonia or speechlessness might be denudation of blood in the center for innervation of vocal muscles. Œsophageal constriction is known to cause the globus hystericus, and occasionally hysterical vomiting. Ischæmia of the auditory or visual cortex would fully account for hysterical deafness and blindness. Suppression of urine can scarcely be understood in any other way than that either the kidney tubules or arterioles are spastically contracted, with an extreme relaxation when, after an hysterical attack, there is the copious flow of limpid fluid known as urina spastica, which might more properly be called urina paralytica.

The "clavus" or hysterical headache is explained by contraction of meningeal vessels locally. Hysterical convulsions find a sufficient cause in cortical ischæmia of the motor parts of the brain, with consequent engorgement of the brain base and medulla, and attendant emotionalism and heart and lung disturbances through pneumogastric reflexes. Fainting and unconscious hysterical attacks are also vascular phenomena. The suppression of tears and saliva, or the other extreme of their copious flow, the facial bloating and drooping of the eyelids and thickened upper lip, in hysteria, are plainly vascular constrictions and relaxations, with occasional serous transudations into the subcutaneous tissues. The facial palings and flushings of hysteria, and tense rapid pulse during hysterical attacks, indicate the importance of vascular spasms in hysterical pathology, in connection with the fact that there is no morbid anatomy of hysteria, as no *post mortem* findings bear either for or against the existence of such functional derangements.

The sluggish circulation of dements is an index to the cerebral relations of bodily blood supply.

The circulation and its apparatus are concerned momentarily in vital phenomena, and the brain functions depend every instant upon nutritive supply for continuance of action. When the heart stops, unconsciousness results at once because the blood supply is cut off from the brain. A diminution of the red blood corpuscles tends to the reduction of mental and physical force, with drowsiness, oppressed feelings in the head, mainly on top and about the arm and leg centers in the brain, with consequent lassitude of those members and disinclination to exertion. This reduced supply of blood also defeats attempts at continued mental effort.

Anemic conditions alone do not suffice to cause insanity, but in some cases contribute to its production. Severe hemorrhages may be attended with mental derangement in one person, and in the majority fail to produce such a result. Depression, anxiety, or, at least, a feeling of apprehension and oppression, usually follows depletion of this kind; and in extreme cases a feeling of utter indifference to everything has been experienced, the direct opposite of the active distress in some hyperemic states. Simple anemia suffices to derange the mind in some susceptible patients, and, on the other hand, progressive pernicious anemia has failed to destroy mentality. Chlorotic girls are not insane; drowsiness is the most constant effect of chlorosis; but I have known the chlorosis to be extreme and to be attended with great insomnia, cardiac irregularity, and severe apprehension amounting to terror, at times. Spitzka[1] ascribes hemorrhage as an occasional single and direct cause of stuporous insanity, and thinks that anemia is often a result of insanity, and not a cause, particularly in simple melancholia and the chronic forms. The anemia is often, in his opinion, not more marked than in the poorhouse or tenement house population.

While it is generally supposed that there is an increased quantity of blood in the brain in mania, and a decreased amount in melancholia, no trace of either may be found in the autopsy; the conditions, being functional, disappear at death.

[1] Op. cit., 69, 374.

Passive or active venous or arterial hyperemia may be general or local, uniformly or irregularly distributed about the brain; and too much or too little blood in parts would have various effects upon function. Engorgements might also be constant or intermit, with added complications; anemia might similarly fluctuate, and such conditions might be combined with toxemias or brain deformities to effect some of the phenomena considered indicative of idiosyncrasy. Congestion produces depression, stupidity, mental hebetude, sometimes irritability, or even fury, and may in some instances be a factor in the suspiciousness and persecutory delusions of the insane. There appear to be degrees and modifications, through personal equation or qualitative differences in the blood, which determine precisely what nutritive changes may do in separate cases.

Experimenters in cerebral localization, as well as cerebral anatomists and pathologists, unanimously regard the frontal lobes as the main seat of intelligence, and especially the left frontal as such in the majority. Hyperemia of these regions has something to do with exaltation of their functions, and cerebral hyperemia, either relative or absolute, is an element in excitement or mania. At least, fulness of the cerebral vessels is conceded in *post mortems* of recent mania by Calmeil, Meynert, Westphal, Ripping, and Mendel. The latter concludes that mania is a functional disorder lying behind the mere hyperemia.

Abnormal irritability and excitability of the brain are accompanied with disturbances of vascularity, if such states cannot in all cases be affirmed as causative. Changes of barometrical pressure alter the cerebral fluid contents; extreme altitudes, with attendant low atmospheric weight, occasionally cause bleeding from the nose, ears, and mouth, and, in predisposed persons, hysteria, mania, or melancholia. The redistribution of blood caused by changes in atmospheric pressure being less prompt within the skull than elsewhere, the brain may be relatively congested in high altitudes, and in any great departure from the usual atmospheric weight. The readjustments may not be so easily made in one person as in another, or compensatory abilities may be lacking in one and better in another.

Compression of the brain, which amounts to the same thing as cutting off its nutrition, produces stupidity, stupor, or cessation

of function of the area compressed; and a contiguous or related part may by this pressure be surcharged with fluids.

Dr. P. R. Hoy, in an article on "Injury of the Brain, Involving Speech,"[1] mentions the case of James Lawson, of New Haven, Ohio, whose skull was fractured by the kick of a horse, and by trephining fragments were removed from the anterior superior angle of the left parietal bone, leaving an opening the size of a half dollar. Upon removing a clot of blood the patient recovered from his comatose condition, and the doctor observed that when Lawson was asked a question that involved a considerable degree of mental effort to answer, there was an increased motion of the brain substance, with a decided increase of the flow of blood in the small vessels of the brain, which flow gradually subsided as soon as the mind came to rest. The doctor asked him a question and immediately made firm pressure with a finger, on the exposed brain. As long as the pressure was continued he remained silent, but the instant the finger was lifted, he would reply, never suspecting that he had not answered at once. Repeated experiments of the kind gave the same results. The patient made a good recovery. Dr. Thomas Johnson and Dr. Orlando Steward, of New Haven, Ohio, were present at the operation.

The same author tells of John Loftus, of Mt. Pleasant, Wisconsin, who was also kicked in the head by a horse, causing a fracture and depression of the superior border of the frontal bone, a little to the left of the mesial line. Dr. I. W. Wilson assisted in the operation. As soon as the portion of bone was removed the patient, who had been unconscious for three hours since the accident, cried out, "Whoa, Dolly!" with great energy, and then stared about him in amazement, and demanded, "Where is the mare? Where am I? What has happened?" Loftus recollected only that the mare had wheeled with her heels toward him, and had laid back her ears, but he knew nothing of the kick. Dr. Hoy recalls a case that was related by Prof. R. D. Mussey, of the Ohio Medical College at Cincinnati, to the class of 1840, since which time there have been many similar instances recorded, but very few have been so well authenticated: "*A man*

[1] Journal of Nervous and Mental Disease, April, 1877, 288.

living in Vermont was standing near his mill, bantering with his son about shooting a kingfisher that was perched on a dry snag that projected from the water in the pond. The son fired and the rifle ball, a small one, missed the bird, ricochetting, and struck the father near the middle of the forehead. He dropped instantly and for a long time it was thought to be impossible for him to recover; but time wore on, and he still lived, a mere animal, incapable of speech, for fifteen years, at which time there appeared a slight elevation of the skull at the crown of the head. Dr. Mussey was called and trephined the spot, when he was able to remove the flattened ball that had remained so long within the skull. In a few moments the old man called out, 'Zeke, you dog, you missed it!' 'Missed what?' asked the doctor. 'Why, the kingfisher!' This was the first word spoken since the accident, and he could not understand why the report of the rifle was not still reverberating over the water at that moment. Zeke was married, had a family, and was living in the west. The father had grown gray, and all was changed. A Rip Van Winkle in reality."

A trephine button 2 inches in diameter, over the right frontal part of the brain, had been unwisely replaced by a surgeon, and in four years' time it had dropped below the inner table of the skull, producing apathy and memory defect. Consciousness has been suppressed by compression, to be immediately restored upon the brain being relieved of the pressure. A fear of crossing open spaces developed in a case mentioned by Erichsen[1] after a cerebral blood supply derangement, and many faults of co-ordination, subjective sensations, illusions, hallucinations, and even delusions, are, beyond doubt, directly due to circulatory faults. The cervical pain of general anemia, which often precedes melancholia; is evidently owing to deranged vascularity.

Sleep is attended with a passive, not a constricted, condition of the cerebral vessels, associated with relatively less blood in the brain than in waking states, according to reasons I advanced and published.[2] The cerebral tissues are then undergoing repair, somewhat as fallow ground is fertilized; time and rest being

[1] Concussion of the Spine, 93, case 21.

[2] Science, N. Y., Nov. 11, 1892; Journal of American Medical Association, March 10, 1894.

required in each process. Crops may be forced, but with danger of exhausting the soil; maniacal excitement, with sleeplessness, tests the repair capacity of brain tissue severely; but the terrible waste appears to be nearly compensated by the accelerated blood supply. Brain irritability occasions loss of sleep, and the latter will induce the former, whatever may have been the initial cause. Heightened molecular activity from insomnia, etc., renders the brain unduly responsive to stimuli, and hyperæsthesia is a consequence. The quickened senses of mania are directly related to more rapid chemical interchanges, decomposition, and recomposition; and the balance struck between these interchanges decides whether there shall be complete or incomplete recovery.

Special susceptibilities are behind differences in results of single pathological causes. Coma in one, convulsions in another, and minor effects in still others, follow upon congestions, tumors, ischemias. Some contradictory effects may be accounted for by an anemia in one part being associated with congestion in another locality. Pressure or privation of fluids in one place may engorge a distant part. Suppression of function in one location exalts it in another, by action at a distance by continuity of channels, and the operation of hydrodynamic and static principles, which would be readily understood were the organs exposed to view at the time.

Heubner's measurements of the ramifying arterioles of the cortex gave an average of 1 millimetre, while the same system of vessels, according to Duret,[1] had calibers from a quarter to a fifth of a millimetre. These apparently different anatomical observations may be accounted for by the probability that each worker examined brains of his own nationality, and if the minute vascular construction of brains differs so radically the fact would go far toward establishing anatomical bases of dispositions. The larger vessels would account for the phlegmatic German nature, and the smaller for the French excitability, through less constancy and facility of cerebral cortical circulation.

Toxæmias, or poisons in the blood, have a general or usual, and a special, or erratic, action. The poison ivy will affect the multitude alike, but there are some who are extremely suscepti-

[1] Charcot, Localization in Diseases of the Brain, 50.

ble. A regiment of soldiers marching along a road would be unaware of the proximity of the plant but for the fact that a few of them are poisoned at a distance from it, though others may handle it without being affected. Toxicodendric acid was found by Maisch in the vesicles of ivy poisoning; hence ammonia or other alkaline application instantly relieves the pain and inflammation, suggesting that the immune persons may be such through alkalinity, and the susceptible through acidity of secretions. Future chemical pathology will find fruitful study in the relative states of alkalinity and acidity of the tissues, and the significance of the altered chemical secretions about the body in insanity and disease in general. Alcoholism is a toxæmia, the stages of which resemble mania and paretic dementia. The rapid molecular recompositions of the alcohol hydrocarbons with the brain substance, exalting function for a time, shows that it is a dangerous food to the tissues, with the stupor and arrest of function from surfeit supervening, and through lessened elimination there must also follow auto-toxæmia. It requires no imagination to conceive of the accumulation of effete materials in the drunkard.

Faulty brain circulation disables some persons from taking medicines, such as quinine, which raise the blood pressure in the head; and where malaria, atropia, or quinine produces insanity a predisposition exists. Such influences are comparable to all other exciting causes of insanity which are ordinarily insufficient to disturb the mental equilibrium of the majority. Malarial recurrents are doubtless predisposed phrenasthenics who are oversusceptible to the mental influence of poisons.

Idiosyncrasies are racial as well as individual; negroes are said to be more liable to pneumonia, and yellow fever epidemics have confined their ravages to one or the other color.

S. S. Cohen remarks:[1] "Of a number of persons exposed to cold and wet at the same time and place one shall have articular rheumatism, another pneumonia; one shall contract tonsillitis, another nephritis; others shall escape apparently unharmed. Evidently there is something at work, in addition to inclement weather and specific microbes, and this something, which is the determining and therefore the principal etiologic factor, is a

[1] Transactions Pan-American Medical Congress, 243 (1893).

something peculiar to the individual, a physical personal equation. We call it, whether exhibited in relation to the exciting causes of disease or to the action of drugs, individual liability, predisposition, idiosyncrasy, and, though our terms are singular in type, we recognize that the singularity is relative and may be exhibited by several persons. For every idiosyncrasy there must be a physiological basis. By comparing the phenomena, special and general, exhibited by a group of persons presenting similar or identical idiosyncrasies, we take a step toward the recognition of the basic physiological conditions. The influences under which these phenomena are displayed are more especially temperature, cold more than heat, emotion, visceral or internal reflex excitations, and the action of toxic agents found in the organism or introduced from without. Functional and nutritional disturbances may result in structural and finally in organic changes."

Derangements of bodily organs occasionally exhibit characteristic emotional states, as the irritability and disgust of dyspepsia, the anxiety of heart disease, the jaundiced disposition of a liver complaint, and the hopefulness of consumption.

Poisons like alcohol, chloroform, ether, and morphine, act directly upon the nervous elements. Repeated doses of alcohol and morphine degrade important structures, such as the vascular and connective tissue systems. Septic poisons at first stimulate and then depress, and syphilis may be taken as a type of poisons which continue development in the body after introduction. Malarial poison is of this kind, but the organic degradation is more extensive in syphilis. Lead produces mania, melancholia, or dementia; and the blue line on the gums in such patients should suggest the cause of the insanity, and lead to appropriate eliminative treatment, with prompt results in most cases. Mental overstrain gives syphilis a direction to the brain and results in cerebral syphilis, paretic dementia, or syphilitic dementia. Idiosyncrasy may direct its lesional effects to the spinal cord, with resulting cord syphilis, myelitis, or locomotor ataxia.

Poisonous bites and stings in many cases start further toxic manufacture, either of a similar or allied nature; the formic acid sting of insects exerting itself more or less locally, while serpent bites are vastly more general and dangerous in their effects. Neutralizing influences sometimes subdue what would otherwise be viru-

lent poisons, and the study of toxines indicates that some animals and even human beings enjoy a degree of immunity, in special instances, from the composition of serum antagonizing certain poisons.

On the other hand, weakness of certain kinds intensifies the action of certain toxic agents, and even ordinary stimulants may have extraordinary effects. Tea or coffee may not be tolerated by some, and tobacco encounters varying resistances to its effects. In epilepsy, tobacco usually proves hurtful by increasing the frequency of convulsions or their severity. Cocaine usually stimulates and irritates the brain, and has caused general anesthesia in a few.

Auto-toxæmias are frequently secondary to mental or physical disorders, sometimes appearing simultaneously with, or preceding, insanity.

Chronic constipation alone will not derange the mind to any notable degree, and the coprostasis which is sometimes so extreme that the transverse colon is bowed downward with impactions, is due to intestinal inactivity in common with the prevalent systemic depression; so the constipation and insanity are merely associated and effects of some anterior cause. Were such troubles as constipation usual causes of insanity, the race would be mentally degraded, and but few women would ever be sane. Then, again, remembering that what is generally insufficient cause for insanity may be sufficient in some predisposed cases, constipation may occasionally act as an exciting cause, as tuberculosis or dyspepsia appears to suffice in a few instances.

Twenty-one days of bowel inactivity have been recorded, but among the insane much longer periods could be mentioned in which this condition was maintained. The poisonous gases absorbed by the blood might be conceived as inducing what the Bouchard students would call copræmia or stercoræmia. Nevertheless, initially, this coprostasis was an effect, and not the cause, of the insanity, but subsequently aggravated it. Occasionally neglect of evacuation might act as an exciting cause of insanity in the predisposed.

Erlangen considered uræmic intoxication the cause of insanity in albuminuria, the maniacal excitement in this being followed by quiet dementia and tranquil stupor, as though the irritating influ-

ence on the blood of a small quantity of the poison was changed to stupefaction when the blood became surcharged.

Nostalgia is a good illustration of mental depression inducing perversion of function, which ceases as soon as the mental factor is removed by return to home. Auto-toxæmias may develop in the course of melancholias from whatever origin.

In morphine habituation the retention of effete materials throughout the body is evident in the constipation, and occasional tarry stools, alternating with diarrhœa, the sallow complexion, hallucinations, delusions of persecution, and moral perversion generally. The readiness with which alcohol exerts its worst effects in traumatic cases, inducing maniacal attacks after a head injury, even when liquor is taken in small quantities, throws some light upon the rationale of toxic effects and predispositions in general. Obviously the circulation is defective in the injured brain part, and, somewhat as a raw wound is affected by irritants, the brain lesion is ready to take on inflammatory, congested, and deranged action, acutely, where, previous to the wound, there would have been no such influence. Degenerates whose circulatory and cerebral balance is in a condition of unstable equilibrium are, similarly, readily and unduly affected by poisons or other causes that would not derange others.

The significance of glucose in the urine of many insane is that metabolism is more destructive than constructive, and the liver may be chiefly at fault. Lallier claims that thirst and polyuria are frequently absent in the diabetes of insanity. This departure from the rule that there is great thirst and voiding of abnormal quantities of urine in ordinary diabetes mellitus should not be allowed to pass unstudied, even though glycosuria is not always diabetes, and what may be called diabetes in the insane may be merely glucose in the urine, which does not always amount to diabetes. In the conversion of starch into sugar, water is abstracted from the system, which may be the cause of the thirst, as in cholera the loss of watery constituents creates intense thirst. Dextrose is starch plus a water molecule, and the query is suggested, Is the conversion different in the insane than in the sane person, and, if so, why?

Cholesterin crystals are superabundant in the precipitate from alcohol that has been used as a preservative of the brains of per-

sons who have died insane. In a case of melancholia this finding was extraordinary in my experience. The relevancy of cholesterin products in either health or insanity is not satisfactorily ascertained. It is found as a normal constituent of the blood, nervous tissue, and bile, and according to McKendrick[1] it has a probable tissue-forming character. Austin Flint, Jr.,[2] regarded the separation by the bile from its cholesterin as essential to the maintenance of the healthy activity of the nervous system, and that derangements of this secretion lead to nervous symptoms which he designates by the name of cholesteræmia. The fact that cholesterin forms a compound with bromine is worthy of examination in connection with the use of bromides in epilepsy and the part cholesterin plays in that neurosis. It may be one of the irritative factors which, when formed in excess, helps to cause convulsions, and, if converted and eliminated, an attack is averted.

"The enormous quantity of gas discharged in cases of hysterical flatulence consists largely of carbonic acid; it is possible it may have simply diffused from the blood vessels."[3]

The phantom tumors and aberrant action of the blood vessels in hysteria generally may be rationally conceived as due to gases which, instead of being eliminated by the lungs, are more or less retained or erratically liberated in tissues, causing vascular constrictions and suffusions; and pressure results from distensions within or adjacent to blood vessels.

Bouchard wrote extensively on the disorders connected with the exaggerated formation or retention of normal poisons in the system. Lavaure demonstrated that in the acute insanities, and especially in mania, the urine loses a large proportion of its toxicity, evidently from the retention of poisons in the system; and Féré discovered that the urine of epileptics was more toxic before than after a convulsion. Regis approves of Bouchard's theory of general disorders from retardation of nutrition, and extends its application to the origin of diathetic forms of insanity, such as gout and rheumatism; and he mentions an instance of hereditary arthritic insanity with uric acid retention, suppression of perspiration, and trophic disorders incontestably due to retarded nutri-

[1] Physiology, I., 147.
[2] Research Concerning a New Liver Function, Paris, 1868.
[3] Halliburton, Text Book of Chemical Physiology and Pathology, 693.

tion, in which the insanity followed the oscillations of the poisoning.

Uric acid usually bears a constant proportion to urea, and this fact renders it somewhat easy to estimate what should be voided. The excess or decrease of uric acid has its pathological value, and is worthy of extensive study. It has been found in excess the day following the highest fever, and in leucæmia, in splenic anemia, and dyspepsia; and Garrod shows that in gout there is decreased kidney elimination, with uric acid retention in the system. In diabetes, anemia, and other diseases, uric acid is decreased. Smyth claimed an increase of uric acid in paretic dementia, epilepsy, and melancholia; and, on the other hand, uric acid is said to give rise to disorders of the nervous system. Murchison associated with lithæmia pains and lassitude, liver neuralgia, cramps, headache, vertigo, dimness of sight, convulsions, paralysis, tinnitus, sleeplessness, depression, irritability, and cerebral symptoms; and Haig found that the urine excreted during a headache shows an excess of uric acid, the relation to urea being 1 to 20, whereas before and after a headache it is 1 to 40; and in epilepsy and migraine the excretion of uric acid is greatly diminished before the attack; that is, mental exaltation corresponds to a minus excretion of uric acid. The high arterial tension of migraine and hysteria has been ascribed to the direct irritation of the vessels by the uric acid poison.

The intake and output of nitrogen in food should be related, and in fevers and insanity there is a greater excretion of urea than can be accounted for by the food taken. Many drugs and debilitating diseases destroy the nitrogenous balance. In convalescence from fever, during maladies of the kidneys and liver, in gout and melancholia, the excretion of urea is lessened, as well as in terminal dementia and probably in maniacal states also.

Addison[1] examined the urine of sixteen cases of mania, and reports the quantity diminished, specific gravity high, intensely acid, sodic chloride less than when convalescent, urea decreased, phosphoric acid less during excitement, sulphates greater in convalescence than during the attack.

The tendency of uric acid to form concretions makes it a

[1] Journal of Mental Science, XI., 262.

prominent component of the urine, though normally it is physiologically insignificant.

Sodium urate is the poison of gout; and while lactic acid was formerly supposed to figure in rheumatism the idea has been abandoned with an inclination to substitute uric acid, but this also has been repudiated. Rheumatism appears now to be an infectious disorder with specific tendencies to special organs, and capable of altering the chemical constituents of those who are predisposed to it.

Haig[1] says: "Dyspepsia is partly a cause and partly an effect of uric acidæmia and high arterial tension. No doubt, uric acidæmia, when it contracts arterioles, may practically suspend entirely gastro-intestinal digestion and absorption, and allow putrefactive processes to take their place, in this way causing dyspepsia. But dyspepsia, on the other hand, will also cause or increase uric acidæmia, and when indigestion upset causes a fall in urea and acidity of urine, alkalinity of the blood is increased, and any uric acid in reach is at once taken up in solution, causing a uric acid storm (bilious attack in some), and the high tension from uric acid in the blood causes either headache or epilepsy, or, if dyspepsia is chronic rather than acute, mental depression."

The same author[2] further remarked: "In the declining years of life, owing to failing nutrition and falling urea and diminishing acidity, we get a very large amount of uric acid dissolved out and passing through the blood; most in those who have taken freely of a high nitrogenized diet in the previous twenty years of their lives. The uric acidæmia thus brought about contracts the arterioles and raises arterial tension, and the further general failure of nutrition, chronic Bright's disease, and chronic bronchitis, are secondary to this. A large proportion of very old persons have been strict vegetarians. Asthma resembles migraine, epilepsy, and Reynaud's disease in being paroxysmal and related to uric acid in the blood. Excess of uric acid contracts the arterioles all over the body, and produces high arterial tension. Migraine and epilepsy represent the effect of high arterial tension on the circulation of the brain."

[1] Uric Acid, 60.
[2] Brain, 1893.

Individual peculiarities, and especially degeneracy, seem ready to start uric acid results, as though the borderland between healthy and diseased processes, the dividing line between normal and morbid physiology, particularly with reference to nutrient fluids of the body, were maintained through general integrity of physical makeup; deformities, degradation, or even departures from the normal sufficient to constitute idiosyncrasies, eccentricities in many cases, serving as gaps through which hostile processes threaten to overthrow health. The sewage system of a great city needs as careful attention as does the water and food supply; and the melancholiac, and some other sick and insane may be said to have their intakes and sewerage badly mixed. The phrenasthenic liability to sudden turmoil of mind and body may be compared to a corporate organization governed by incompetents who are liable to substitute confusion for orderly modes of working.

Mania and melancholia have sprung from identical causes, such as hemorrhage; an increase of cerebral activity occurs in the one instance, with decrease in the other. Some factor other than mere anemia induced by the hemorrhage must operate to account for such diametrically opposite effects flowing from a single cause. The hungry amœba is more rapid in its movements than when fed; but privation may go to the extent of paralyzing the protozoön. A relatively bloodless state may by added causes induce either activity or depression in the same organism, as poverty may paralyze effort in one and act as a spur to another person. To say that such differences are peculiarities of organization merely transfers the problem or restates it. The physical basis of this difference is the all-important matter, and undoubtedly the theory of molecular activity and inactivity of brain and nerve tissue as influenced by nutrition is one step toward intelligent study of the phenomena. The parts of an organism are related very much as are the railroads and telegraph systems to the food-producing and manufacturing industries of a community; wherever the derangement may be initially, in supply, demand, and consumption, sooner or later the conveying and correlating mechanism must share in the privations springing from want of harmony. Insufficiency of blood in the head is followed by rapidity of heart tion and the circulation characteristic of weakness, a compen-

satory effort that ordinarily occurs. If from additional causes the heart cannot beat faster, and the fewer blood corpuscles are not brought rapidly enough to parts to compensate for the quantity lost, then apathy or depression will occur. Relatively pure blood through accelerated circulation can be conceived as a condition in excitement, but if the same accelerated blood flow is impure, then the pain and terror of melancholia would take the place of the pleasure and satisfaction of mania.

So, uric acid poisoning may go to the extremes of exaltation or depression; in the one case by stimulating the arterial tension, as in the first stages of alcoholic intoxication, and in the other by surcharging the tissues with poison. Uric acid may co-operate with other auto-toxæmia to cause melancholia or dementia, just as alcoholism produces depression and stupidity after a debauch.

Compensatory influences frequently nullify tendencies to insanity or disease, as a rebellious stomach may save one from drunkenness, or a weak heart may warn away from excitement. A twist in the uterine cervix, if compensated by a patulous os uteri, enables one to pass menstrual periods unnoticed, where the same flexion with insufficient outlet would cause intense suffering.

A locomotive with a cracked driving-wheel axle has run 60 miles an hour with safety on a straight course, only to smash up finally when it struck a rail frog while running at 5 miles an hour. So physiological defects may remain latent until accident has strained the faulty part beyond endurance.

Defects of elimination may be inherited; and the matter of kidney insufficiency may explain morbid conditions formerly misunderstood. Inadequate or outgrown organs suggest resemblances to the sewage defects that Chicago sought to remedy in constructing the great drainage canal.

Gases ordinarily important biochemically may under altered conditions be factors in derangement. The nitrogen and oxygen of the air, when combined as nitrous oxide gas, cause delirium and loss of consciousness if respired. Pure oxygen produces excitement by accelerating normal metabolism, particularly that concerned in cerebral activity. The expansive ideation, mental rapidity, and pleasurable feelings of simple mania, suggest superoxygenation of brain tissue. Defective oxygenation is one of the morbid accompaniments of melancholia. It is not necessary to

suppose that, as oxygen excites the brain, all excitement springs from such cause, for activity may arise from many stimuli, and be provoked in other ways.

Beaumont claims that in atonic dyspepsia the condition of the stomach resembles that of the furred tongue of the patient, and the normal gastric secretions are scanty. An alkaline transudation occurs in the active congestion of irritative dyspepsia. According to Haig, the diminished hydrochloric acid of gastritis permits abnormal fermentations to occur in the stomach, with development of lactic, butyric, and acetic acids and alcohol; the ferment producing spores are not destroyed by hydrochloric acid, as they would otherwise be.

The gases of eructation are carbonic acid, hydrogen, and marsh gas, and, in addition, insane breaths often exhale the fruity odor of acetone and the offensive sulphuretted hydrogen. Loss of appetite, lessened peristalsis, and constipation, accompany the alimentary derangements of the insane.

Poisons that are normally formed during digestion and excretion may be overproduced, or be out of place in the economy. Abnormal poisons, such as acetone, may form in diabetes or other depraved states; and acetonæmia is practically stupefaction from blood poisoning. The normal combinations of destructive and constructive digestion may be imperfect, with the formation of foreign materials and failure of nutrition. Putrefactive processes always occur, especially in the lower intestines; and the natural antiseptic bile is supposed to keep these within limits. Microorganisms are presumed to be engaged in destroying intestinal poisons, such as choline, the alkaloid derived from lecithin; and possibly leucomaines are similarly disposed of.

Halliburton[1] records: "The amount of putrefactive change occurring in the alimentary canal and elsewhere in the body, as in putrid abscesses, is best measured by the amounts of certain products in the urine. These are termed ethereal sulphates; the indole, skatole, cresol, phenol, and a few other substances formed by putrefaction are absorbed in very large measure, and excreted in the urine as combined sulphates." Brieger[2] says that skatole

[1] Op. cit., 692.
[2] Ber. d. chem. Ges. 1877, 1031.

is absent from typhoid fever stools. Chlorides are diminished in the urine when excreted largely in diarrhœa. These facts suggest that poisonous substances *en route* toward, may fail of, excretion, and, being retained or absorbed by the blood, produce many results of auto-intoxication.

The amount of urinary sulphates in disease runs parallel to that of the urea excreted. Increased metabolism, as in fever and diabetes, increases the sulphates; and in chronic affections and convalescence there is decrease. Acute inflammatory diseases of the spinal cord and delirium raise the quantities, according to Bence Jones.

Fürbringer and Neubauer estimate the variation of urinary sulphates as from 1.5 to 3 grammes daily. The blood should contain but traces, and the urine abundance of these salts is derived from the changes that occur in the proteids of the body; the nitrogen is excreted as urea and uric acid; sulphuric acid is formed by sulphur oxidation, and passes into the urine combined with metallic bases, "but to a small extent also in ethereal combinations with organic radicles to form the ethereal sulphates." When the relative quantities of urea and the sulphates are changed, it may be inferred that there is either extra elimination, or retention of the poisons from which the excretion is formed.

In a case of atheromatous insanity in my practice, there was a remarkable absence of odor from the patient's fæces, suggesting either arrested putrefaction, or complete absorption of the offensive gases into the system. While the basis of this insanity is undoubtedly in the degenerate cerebral arteries, nevertheless auto-intoxication may also be operative.

The altered perspiration of the insane, which, with other secretions, gives rise to the unwholesome "insane odor," should be investigated chemically. The ethereal sulphates may be so abundant in the blood as to be directed to sudoriparous channels, and thus exhaled in perspiration. Butyric acid is found in sweat and other excretions, which, with the formic, acetic, and valerianic acids, and acrolein from decomposing carbohydrates, in rancidity or other fermentation, form but a small part of the compounds the perverted chemical operations construct, and substances that are normally soluble or insoluble may be inverted as to solubility. In fact chemical pathology is in its infancy, and in that field the

fullest explanation of insanity, as well as of disease in general, will be developed. And though the initiation of mental disease may not be due to auto-intoxication, it certainly is an active feature of certain stages of some acute insanities, and is further worthy of consideration; for poisons, whether introduced into the system, or originated there, ultimately lead to organic changes.

However inadequate the terms "organic" and "functional" to designate divisions of diseased conditions, it is certain that, ultimately, all disease must be organic. Therefore the different mental derangements may be classed under one head or the other when fully developed, though the majority may either spring from, or be complicated with, disturbances of function.

The purely organic maladies from congenital defects, whether manifest at birth or later, are paranoia, idiocy, imbecility, hebephrenia, sometimes epilepsy.

Organic changes are associated, more or less closely, in the relation of cause and effect, in trauma, often in epilepsy, occasionally in hysteria, to a certain extent in phthisis, always in organic brain disease, atheromatous insanity, syphilis affecting the brain, and in terminal dementia, whether demonstrable or not. The radical changes in extreme cases clearly demonstrate that secondary dementia always involves brain degeneration. Organic changes supervene in the course of, and sometimes constitute the groundwork of, chronic alcoholic insanity and other toxæmias in later stages, senile dementia, epileptic insanity, delirium grave, and paretic dementia. Organic defects, to a greater or less extent, are clearly inferable in dipsomania and the other obsessions, those predisposed to climacteric, puerperal, lactational, periodical, epileptic, and hysterical insanities, and sometimes the diathetic insanities from gout and rheumatism.

Functional derangement is the basis of acute alcoholism and the earlier stages of chronic alcoholism, and sometimes in early alcoholic insanity stages; delirium tremens, alcoholic trance, alcoholic epilepsy, the inception of alcoholic paretic dementia, acute morphine, cocaine, and other toxic insanities; mental changes at puberty and the climacteric, the vesanias, and sometimes epilepsy and hysteria.

The functional disturbances through auto-toxæmia are immediate, intermediate, or terminal stages of insanities. The hydraulic

and other animal mechanism is more complex in an ascending scale of organic life; and, considering that the body is practically a unit, and that its parts should work harmoniously to definite and correlated ends, it is reasonable to suppose that inaccuracies in one place cause distant or general effects, and health becomes a greater mystery than disease.

Blood pollution is often added to circulatory or functional derangements of less gravity than toxæmias, and the final effect of repeated poisoning of any kind is to degrade the brain and other structures. Alcoholism in its lesser acute phase is mainly circulatory, with accelerated metabolism in some respects, and arrested or retarded nutrition in others, eventuating, when the cause is increased, in filling the nutrient channels with effete materials, with all the consequences of that species of auto-intoxication as secondary to the alcoholic intoxication. Morphine and some other drugs are like alcohol in their results. The periodical insanities may be compared to intermittent malarial poisoning, with periods of surcharging of the blood with poisons. They may be "uric acid storms," as Haig suggests, in migraine and epileptic convulsions, and periods when sodium urates in gout affect the brain circulation more than the joints. The relationship of rheumatism to chorea, katatonia, and rheumatic insanity may be profitably studied as oscillations of auto-toxæmias or fluctuations of the products of rheumatism. Circular insanity passes through maniacal excitement to despondency, as though circulatory acceleration met with a neutralization of its cause during the lucid interval, to finally advance to auto-intoxication in the melancholia phase; and the seasonal influence is worth consideration in this connection. Melancholia itself, beginning, as it often does, with gastric disturbances, constipation, furred tongue, poisonous eructations, and the raptus furies being attended with a cordy rapid pulse akin to what Haig and others note in "uric acid storms," promises rich results to investigators in this line. Asthma alternating with insanity, especially where uric acidæmia is suggested, falls into the group of auto-toxæmia derangements.

While cerebral syphilis may consist largely in pressure symptoms of neoplasms, when locomotor ataxia and paretic dementia also spring from a luetic origin they indicate by their pathological results that they are due to toxines developed by

syphilis; and it also seems likely that phthisical insanity is an expression of bacillus product poisoning, for it is a distinct departure from the other and more common tuberculosis phenomena.

Just as "bilious attacks," sick headache, or migraine may suddenly arise in the sane, so unexpected violence occurs in some insane. The accumulation of poisons in the cerebral circulation may reach an unendurable point, with irresponsible furies resulting.

Delirium grave is such a profound and acute general disturbance, with high temperature, that a poison must be the main factor in this insanity, whether zymotic or originated in the system. The brains of acute delirious patients are puffy and macerated, and my report of a *post mortem* examination shows that there was an urinous odor quite perceptible in the cerebral fluids.[1]

Brain deformities are, plainly enough, associated with idiocy, and an imperfect brain organization exists in imbecility. There may be cortical or fibrillary defects, or disproportionate development of related parts, as, when a small medulla insufficiently projects impressions toward or from the ganglia and cortex, or asymmetrical lobes prevent intelligent action. In an article entitled "The Sulcus of Rolando and Intelligence," I made the original statement, for the first time, so far as I know, that ordinarily the fissure of Rolando is situated farther backward as a posterior boundary of the frontal lobe, in an ascending scale of intelligence, and that the left frontal lobe is the larger and the fissure on that side is more posteriorly developed than upon the right side of the brain, and that, coincidentally with the enlarged frontal lobe, the medulla axis is pushed to a more erect and rectangular connection with the brain base; the lower animals having such axes more oblique.[2] A further elaboration of the subject appears in my article on "Brain and Skull Correlations."[3] In idiocy the left frontal lobe is frequently the smaller, and the Rolandic sulcus is far anterior to the normal position. Even when slightly in front of the right fissure, it constitutes a deformity.

[1] Journal of Neurology and Psychiatry, August, 1883.
[2] Journal of Nervous and Mental Disease, April, 1880.
[3] Science. New York, Oct. 21, 1892.

The nutrient channels of the brain may be at fault structurally, just as abnormalities of circulation are seen elsewhere in the body in an aberrant distribution of arteries or veins, or in faults in their caliber, or their absence altogether from parts. Insufficient or misplaced foramina of the skull may derange the circulation. Osteal compression, or entire absence of a brain part, may constitute the deformity, comparable to the failure of a limb or feature to develop. The period when such deformities appear will be followed by certain results differing with the age of the persons. A prenatal deformity of the brain might produce idiocy, and a lesser structural fault imbecility. A deformity may be latent because restricted to a part that later, in youth or adult life, normally undergoes further development to serve the purposes of a grade of intelligence expected to appear at certain epochs in life, which, if prevented by this latency, will end in imbecility, hebephrenia, or paranoia. So, while the brain defect appears at differing periods in life, it exists potentially, as any departure from the type or species may in other respects, affording sports in plants and monstrosities among animals.

Instances of hereditary maldevelopment are abundantly recorded. The not improbable statement was made to me that a family through three, and maybe more, generations of males developed a peculiar deformity. Upon reaching ages between thirty and thirty-five the little and ring fingers of the right hand of each person became permanently cramped by flexion into the palm. Suicides committed by successive members of a family, upon reaching a certain age, doubtless have some such anatomical developmental cause at their foundation.

A deformed brain may be prevented from acting as such, to some extent, by associated compensating organs whose vigor atones for the faulty structure. The brain may control the body but it receives its ability to do so from the body, as the government in a republic is supposed to derive its power from the people; and, within limits, a defective nervous system may be restrained by superior muscular, visceral, or vascular organization. When, however, these related organs are also at fault, especially the nutrient channels, either anatomically or in their manner of working, flaws in the brain construction become more apparent, and the madman may be one "to his finger tips," or even "to the roots of his hair."

Recurring to the simile of a flaw in mechanism which is not apparent until the machine is overstrained, a broken leg may be so repaired that it seems normal, but fatigue will betray a limp.

Constitutional differences in individuals may be illustrated by the conduct of a dozen men, say at a board meeting, upon receipt of a piece of news affecting their interests in common. Of some their acts may be predicted, and of one or two they cannot, for they are "one thing at one time and another at another time." The first class includes those who are more or less impressionable, but stably so. Similarly, organization in insanity determines how much response there will be to exciting causes and departures from a normal standard of physiology, as in the instances of poisons taken or evolved in the system.

In one instance of doubting insanity the symptoms indicated a structural fault in the superior anterior frontal arteries, rendering the circulation in that region erratic and inconstant. The intermittent pulse and occipital pain in *folie du doute* depend upon blood-vessel derangements. Healthy will power can exist only where the centers for impulses have an equable and sufficient blood supply; if, just as a decision is impending, the nutrient supply deserts the nucleus of cells regulating the special action involved in the decision, then indecision follows. The entire subject of nutrient reflexes is commended to physiologists and alienists inclined to go below the surface of their studies.[1]

Epileptic phenomena are, in all probability, based upon what is either a central nervous system deformity, however minute and undemonstrable, or a latent potential one that alcohol or other toxic influence may operate upon disastrously. The epileptic tendency plus a recurring auto-intoxication, whether uric acid or otherwise, may advance to final brain degeneracy with the "epileptic habit."

Puerperal insanity is a maniacal or melancholic state that is so constantly based on heredity that a latent deformity may be supposed to be the real, and the child-birth the exciting, cause; a qualitative or quantitative derangement of the circulation, which in an ordinary female would cause but temporary elevation of temperature, slight excitement, or depression.

[1] Comparative Physiology and Psychology, 1884.

Similarly, structural faultiness must lie at the root of the periodical insanities, which suggest imperfect nutritive elaborating apparatus, visceral rather than cerebral defect, at least in the earlier stages and before the brain degeneration, inevitable upon too severe or frequent recurrences, has ensued. A malarial recurrence of insanity argues predisposition, with the plasmodium malariæ development coinciding with exacerbations, and their latency in the blood being associated with remissions. Defects must exist in such cases, or intermittent and remittent fevers would more commonly induce insanity.

The brain degradation of trauma, or other inflammatory encroachments upon brain tissue, inducing imbecility in the young, is to all intents deformity, in its interference with brain development; and hebephrenia may be similarly brought about by traumatism.

Hysterical states of all kinds have underlying deformities of the cerebro-spinal co-ordinating apparatus, none the less deformity if it has to be imagined as in the molecular or intimate chemical structure of brain, nerves, or arteries. The readiness of narcotic habituation of the hysterical indicates chemical insufficiency in their histological organization.

Among the abject secondary or terminal dements the gaping fissures, shrunken convolutions, and atrophied frontal lobes proclaim that, in the lesser degrees of terminal dementia, brain deformity exists, due to the degradative pathological changes of the preceding insanity.

In 1896 there was an instructive case of sexual perversion at the Illinois insane hospital at Elgin. The patient was a young girl who was erotically inclined to those of her own sex. She had been adjudged insane, for an intimacy of the kind, and proceeded to fall in love with a female attendant whom she succeeded in inducing to visit her after her release; and in a fit of jealous rage she killed both herself and the attendant. At one time Dr. Loewey, the medical superintendent, noticed that the pervert appeared to be overcoming her abnormalities, her breasts developed, and at the hospital entertainments she no longer seemed to be exclusively attracted to females; but unfortunately her relatives took her away too soon. This case, and the murder of another female in Memphis, through the jealousy of a similar

pervert, suggest the strong probability of sexual perversion, at least in congenital cases, deserving classification with deformities, in which not only are the sexual inclinations inverted, but they are also intensified, as though the abnormality were an irritative one, as in pubescence.

Brain degradation may be the direct or indirect result of a lesion, and follow upon prolonged functional derangements, especially the "firing of the blood" with alcohol, or from nutritive impairment of other poisonings, whether absorbed from without or manufactured within the system. The stages of insanities may depend upon a succession of causes, as, after a head injury, at first circulation may be but slightly disturbed; then an inflammation of the meninges and brain follows, a cerebro-meningitis; with, later, gastro-intestinal complications from damaged innervation of the viscera, with the production of auto-intoxication, conjoined with the inflammation and occasionally septic additions which inflammation invites, and with or without suppurations; and the mental mechanism may undergo retrograde metamorphoses of all degrees, sufficient to induce traumatic insanity, dementia, or other forms of mental derangement.

Infantile leg and arm deformities are occasional results of encephalitis; the brain centers for the members having been damaged, failure of development of both brain and limb is a consequence; and occasionally other brain parts may be degraded, with the production of imbecility, or, by slower extension through brain tissues, dementia. The constrained postures of the chronic insane have been mentioned as pointing directly to focal brain lesions. In their passage to terminal dementia, all the chronic insanities incur more or less degradation of brain substance, usually secondary to vascular breaking down.

Senility is a process of involutionary change, and the pathology of old age is essentially a physiological process, just as decay is inevitable upon all development; but in senile dementia not only are the usual brain disintegrations of age exaggerated, but others are added that are not common to senility.

In organic brain disease, atheromatous insanity, delirium grave, paretic dementia, and terminal dementia, the brain degeneration is usually demonstrable, at least in the pronounced and final stages, if not earlier.

The vital importance of the arterial functions in all cerebral action is well shown when the destruction of an artery, its plugging by thrombi or emboli, its interruption as a nutrient channel by tumors or other compression, or its operating as a tumor when aneurismal,—occurs. To a complete or incomplete degree portions of the brain are by such means made functionless; and persistence of nutritive failure results in softenings or sclerosis of the brain substance.

In motor or ataxic aphasia the speech centers of the brain are deprived of blood. In amnesic aphasia the lesion is in brain parts related to, but not directly in, the speech center. In agraphia the hand centers, or their connections with that portion of the cortex in which are the co-ordinations for writing motions, are interrupted, and, as a lesion may deprive one of speech while the ability to understand language remains, so the agraphic patient may not be able to form letters but may be able to read. In alexia there is inability to read because of impairment of the mental visual center. Amimia, or gesture loss, involves the symbolic field, especially the arm and face centers in their connection with visual registrations of the significance of gestures. In paraphasia, or the inclination to substitute the wrong for the right word, the lesion is not likely to be so extensive as in complete aphasia; and the diverted blood supply may erratically cause a wrong word to be uttered, due to the fact that the nucleus of co-ordination for the pronunciation of the wrong word is better supplied with blood at that instant than the corresponding center for the other word formation and utterance. Apraxia, or a loss of knowledge of the use of things, the mistaking of objects, is allied to paraphasia; but the lesion would appear to involve the visual registration to the extent of amnesia, complete or incomplete. In monophasia, where the patient is reduced to an inability to utter but one or a few words, the damage to the brain is usually extensive, and is incomplete, or nearly complete, aphasia.

Tentatively, but on grounds thoroughly reasoned out, we may assign efficient causes for many other physiological and pathological phenomena, more significant than the superficial causes usually assigned on mistaken teleological assumptions.

Illusions may, where persons or things are mistaken, come from impaired memory, or from lesser vascular or other functional disorders or those situated more peripherally.

Hallucinations and dreaming may be caused by irregular blood supply in the brain, or molecular disturbance in the areas of special sense centers in the cortex.

Roaring, blowing, or hissing noises are due to interferences with the circulation of the internal or middle ear. Subjective voices or music always indicate brain cortex disease, frequently further localized by the hallucinations being unilateral, as in the case of Joan of Arc who "heard voices" apparently proceeding from points to her right, from which side her "heavenly visions" also appeared. Where hallucinations are recognized as unreal, the person affected with them may not be insane; but when they are accepted as genuine voices, appearances, smells, tastes, or feelings, and particularly when they dominate the life of the patient, they become insane phenomena, and may be the bases of delusions, causing one of the many forms of "delusional insanity," a much-abused term now dropped except as a generic designation.

Witchcraft or evil spirits, angels, etc., accounted for these hallucinations centuries ago, and of late years invisible telegraphs and telephones have been adopted by many insane as the means by which voices are conveyed to them.

Fright is associated with a diffused brain circulation, or a general confusion of cerebral circulation, often through arteriole contraction. Tremors may suggest frightened feelings, though the latter oftener precede the trembling. Anger and irritability have associated peculiarities of cerebral blood states, often brain turgescence. Not only does the mind instigate bodily movements, but the latter in turn originate ideas in health and disease. The katatoniac finds his muscles assuming certain involuntary positions, and his disordered imagination receives suggestions therefrom. The strut, staginess, and posturing forced upon such a patient by his morbid muscular mechanism, it is more than probable, give rise to notions corresponding to the attitudes.

Sleep is not strictly an anemia of the brain, but rather a relative anemia to the circulation of the waking state. In sleep there is greater passivity of the cerebral circulation. Sleeplessness and dreams are due to the more or less irregularity of blood supply to parts of the brain, induced by stimulation, which in complete sleep is insufficient to disturb cerebral passivity.

Unconsciousness may be from cortical failure of circulation.

Somnambulism may be cortical passivity, or inaction, with one or more of the lower automatic centers supplied with blood as in the waking state. Usually, only routine performances are possible in somnambulism, but routine or automatism varies widely in different persons. Thus, it would be possible for a somnambulist to practice on the piano music which he had already learned, but improvising worth recording would not be probable during an attack. Most of the surprising tales of what somnambulists have done, in directions requiring much originality or thought, are pure romances.

Convulsions are usually disposed of as "discharging lesions" or irritative phenomena. The anencephalous *fœtus in utero* may be diagnosed by its vigorous kicks and explosiveness upon ballottement, and chickens die in violent convulsions when their heads are off. If brain cell irritation were the cause of convulsions, the absence of brain altogether with convulsions at least points to other causes than "discharges" in brain cells. It is the muscles that are convulsed, and cutting off the regulating influence of the brain appears to be a more general, if not the only, cause of spasms. Thus a brain tumor is often found associated with epilepsy; in eclampsia presumably the cerebral blood supply is poisoned by uræmia, and hence the circulation, and through it the brain is practically cut off from control of the muscles. Alcoholism may induce convulsions in a comparable way. In strychnia poisoning and tetanus the spinal cord action is intensified by its irritation and congestion, and relatively the spinal function exaggeration amounts to cerebral depression. The epileptiform attacks in the course of paretic dementia and apoplectic convulsions are due to depressed brain action, rather than to irritation proceeding from such locality.

Paræsthesiæ, or faults of sensation in general, are due to fluctuating circulation in nerve centers. Pain is often mentioned as the "cry of the nerve for better blood." Inflammatory or congested states, or otherwise faulty blood conditions, as well as mechanical injury to nerves, anywhere between periphery and center, may cause pain.

Anæsthesia is suppressed vascularity, peripheral or central, or the cutting off of a sensory nerve in other ways from its distribution. The anæsthesia of locomotor ataxia, in which there is

lesion of the sensory conduction of the cord, when regarded in connection with the anæsthesia of paretic dementia,— the one a spinal and the other a cerebral disorder, with, often, identical etiology,— throws light upon the cerebral foundation of delusions of grandeur as arising from a mental anæsthesia. It is this blunting of mental sensation, feeling, or pain that is sought in alcoholic anæsthesia of the brain by drunkards. Happiness is the absence of care, painful thought, and difficult brain exercise generally. The victim of incarcerated hernia is nearer death when his abdominal pain ceases, and the disintegration of the brain in paretic dementia through the mental anæsthesia causes the *bien faisance*, the "never-felt-so-well-in-my-life" of the paretic, to be insanely interpreted as due to the possession of wealth, great strength, intellectual superiority, etc. Similarly, in the evolution of paranoia the disagreeable feelings of the hypochondriacal stage are insanely accounted for objectively as persecutions for which others are responsible, and therein is the basis of the delusions of persecution and other delusions of a depressing nature. In addition, when megalomania, or a sense of superiority similar to that experienced by the paretic is reached, the prognosis of paranoia is more than ever unfavorable, for, as in paretic dementia, the mental anæsthesia at the root of megalomania is brain disintegration.

In simple mania there is increased metabolism, with circulatory rapidity and blood globule richness, affording more oxygen to the brain; and in maniacal conditions other than simple mania, the pathology is multiple; an assimilable carbohydrate, such as alcohol, increases molecular activity in the cerebrum to excitement or even a violent degree. In trauma, or through the microorganism of la grippe, there may be direct irritation, sometimes to an inflammatory extent. Toxic substances like cannabis Indica, atropia, or lead, may act as irritants; or, in the puerperal and phthisical insanities, auto-toxæmias may be at work, and more than probably in delirium grave, and occasionally in senile dementia or paretic dementia furies, as well as in the furor of melancholia, gout, and rheumatism. Rarely, indirect irritation gives rise to maniacal furies, as during the Chinese punishment of criminals by tickling the soles of their feet. Pruritis, or the itch, or bodily agony, has in a few instances produced fury.

Melancholia or depressed states are attended with blood deterioration through toxæmias, auto-toxæmias, or depression of brain function from worry or pain, diverting or interfering with brain nutrition.

Stupor may proceed from excessive toxicity of the blood, compression of the brain, lessened circulation after hemorrhage, or retrogradation of brain tissue, such as occurs in dementia, in some of which conditions the blood is in a state of deterioration.

All insanities may be summed up as more or less due to brain deformity, brain degradation, or impairment of the brain nutrition, mainly through circulatory faults. These circulatory states are either qualitative, quantitative, or consist in interferences. More nearly, ultimately; it is the nutrition of the brain which is affected in all insanities, either primarily or secondarily, through initial causes elsewhere than in the brain; and all deranged brain action is through faults in afferent or efferent impulses to and from the brain; or is due to faulty organization, congenital or acquired, or to faulty nutritive supply, qualitative, quantitative, or erratic, constant or periodical, due to mechanical causes, such as pressure, or to chemical causes.

CHAPTER XXXII.

TREATMENT.

The insane have more often been harmed than helped by medicines. Injudicious drugging has co-operated with the causes of insanity, and destroyed the chances of recovery.

There is no such thing as a medicine for insanity. In rare instances the correction of some aggravating physiological derangement, especially when related to the blood vessels, stomach, or intestines, has been followed by prompt amelioration of mental symptoms, in the early stages more often than later; but in most cases of insanity there is far greater risk in giving than in withholding medicines. The sole aim should be to allow the body to regain its normal working order by means as nearly natural as possible; and, as helps to such restoration, surgical and medical aids have been the least important and most likely to be misused. Under scientific medical care, however, the deranged person has incomparably greater opportunities of benefit than when in the "care" of officious and inexperienced practitioners whose chief animus is fee-getting, or when consigned to the tender mercies of laymen whose ability to mix drinks and deal faro has developed into expertness in political intriguery and entitles them to disburse the public charity funds, and take charge of the sick, insane, and poor of our large cities.

Correct diagnosis is the first and important step to treatment, and early scientific opinion in all cases of insanity would add to the number of recoveries through timely interposition for those who may be restored by prompt and appropriate care. Alienists agree that many cases of curable insanity have become chronic through failure to use proper means at the proper time, or by doing the opposite of what should have been done.

It often happens that the only period when the disease can be treated with any prospect of cure is its beginning, and the hospital receives the patient when it is too late to begin treatment. Mistaken solicitude is frequently the cause of such delay. The general practitioner, who seldom sees a case of insanity, is at a

loss what to advise, and the relatives have probably never seen a case of the kind before; and in their horror of asylums, and the hope, day by day, that there will be a turn for the better, the patient is kept at home until the strength, resources, and patience of friends are exhausted, and, too late, the advice of an alienist is sought or the case is sent to an institution.

Max Jacobi carried the somatic doctrine of insanity to an extreme in endeavoring to remedy every possible defect found in the insane; but his ideas were well grounded and his inferences were logical, for the removal of disease located in some other organ than the brain has often been succeeded by mental recovery. The excellent bodily health of some secondary dements should teach us that mental disease may also be centered hopelessly in the brain. Accompanying disorders of many kinds have frequently been cured without making the least impression upon the disordered mental condition. At least, want of experience, thought, and study may therefore be charged against rash surgery which deprives the insane of testicles or ovaries, even when there is no local disease to warrant the operation, and in the absence of any reliable record of the success of such procedure in restoring the mind. The physician may know what would help the patient, particularly in the early stages, and yet be powerless to aid, where financial or domestic distress or other possibly remediable moral influences are at work. Frequently the discovery that the disease is beyond help has prevented unnecessary dosing and expense. Timely alienistic advice results in financial saving to estates by avoiding unsuitable and extravagant treatment.

Where excesses are active causes, as in emotional indulgence, religious or otherwise, intemperance or sexual irregularities, cessation often restores mentality.

Anti-syphilitics have been attended with remarkable results in a small percentage of cases. There were two young men at a private sanitarium, who had been for months without suitable treatment because no diagnosis had been made, who accidentally came under the observation of an alienist, and from the symptoms he pronounced the cases to be syphilitic dementia, and under appropriate treatment both young men rapidly recovered. Doubtless hundreds similarly afflicted have been destroyed by failure to recognize the disease.

Change of occupation, scene, and climate may be remedial in some, but not in a large number of cases. Travel will benefit the unobtrusive, incipient melancholic forms, but when insanity is under full headway, particularly where there is associated debility, the exertion of travel is apt to prove pernicious. The earliest period of mental trouble is the time for a journey, with expectation of benefit; and it is simple mania and melancholia that are most apt to profit; while most other patients not only derive no benefit, but are injured by travel, particularly senile and paretic dements.

Insane factors often work in a vicious circle: the self-engendered poisons act upon an irritable nervous and cerebral tissue, and, the reparative processes being out of order, temporary relief from a putrid stomach fermentation or obstinate constipation does not prevent the immediate reforming of the same accumulations. Universally acting restorative means are not possible, nor can remedial agents reach all defective processes simultaneously, if at all. Hence it is common for transient relief in one direction to be unattended by subsidence of other important symptoms.

Medicinal treatment is baffled by refusal of a patient to take medicines, setting his teeth firmly against all attempts to give it, or by his trick of holding the dose in his mouth until an opportunity occurs to spit it in the face of the one who has given it.

The possibility of affording relief to an insane patient depends upon the ability to surmount more difficulties than ordinary sickness presents. The necessity for restraint, the homicidal, suicidal, destructive, or other vicious propensities, the finances, age, sex, and stage of the disorder,—all offer their peculiar problems.

Generally speaking, the public state hospital for the insane is the best place, as the chances for meeting experience, kindness, and the professional spirit are better there than elsewhere, and even in badly managed county asylums the fact that a patient has watchful friends has insured at least fair service. Wealth and the ability to secure special treatment have sealed the doom of many a patient, to whom were attracted some of the buzzards that infest every profession. There are more recoveries in state institutions than elsewhere, notwithstanding that such places, mainly through political depravity, are far from being what they should be. Of course there are many excellent private institutions, and

there are specialists outside of any institution who are better versed in alienistic matters than some superintendents of asylums.

Then the state of the patient is commonly so bad, and so ingrained is the "madness," that the question of successful treatment is sometimes more puzzling than the eradication of dandelions from a lawn without destroying the grass. Fortunately for the sufferer the inability to help him and his refusal of medicines often save him from drugging, and give him a chance to recover naturally.

Insanities, as a rule, are self-limited, incurable, or run definite courses. Mania or melancholia cannot be aborted, and heavy dosing with a view to terminating insanity oftener terminates the patient, whereupon another "death from exhaustion of insanity" is recorded.

Rest, fresh air, suitable exercise, diversion, and food, are the best possible general agents under scientific medical supervision of the insane patient, with all the time that may be necessary for recovery.

Some authors needlessly dwell upon "how to examine the insane." No one but an experienced physician can do so properly, and his knowledge of insanity in general must be called into requisition upon such occasions. If he appears in any other guise than that of a physician he is at a disadvantage, and often in comically awkward plights. If he knows nothing of insanity he cannot make the examination; and if he is well-informed no special chapter on the subject will help his methods or conclusions.

Debility should be thwarted in every justifiable way, whether it comes from faulty nourishment, worry, uterine or ovarian disease, piles, or even "eye-strain."

Nostalgic cases should be sent home at once, as the best restorative for them; and when women are insane from over-lactation, and probably menstruating at the same time, common sense would suggest weaning and tonics. As soon as puerperal cases recover mentally they should be consigned to their homes, as deterioration is apt to take the place of convalescence when such patients are retained in asylums too long.

One of the direct advantages of a speedy diagnosis is that mania and paretic dementia, which have often been mistaken for

one another, are distinguished. Anti-syphilitics should be given in paretic dementia cases, other than alcoholic, as soon as the diagnosis is reached.

Occasionally a sudden recovery has been recorded as happening under a strong mental impression, such as a fright. Hysteria is easily influenced for good or ill by sudden shock, and it is conceivable that, however induced, a propulsion of blood to the head might have an alterative effect in special cases, filling unused avenues and starting anew disused functions. Pinel mentions a suicidal attempt which was frustrated by robbers with whom the patient fought, and so forgot his intention to kill himself, returning home cured. Rush speaks of a lady patient whose reason was restored when her runaway horse dashed against a closed gate; and Esquirol describes the case of a girl who suddenly recovered through terror of the actual cautery he was about to apply. Pritchard and Ray mention recoveries from insanity after fevers. A chronic melancholiac at the county asylum fell three stories and broke both her legs and her reason was restored for two weeks, after which she relapsed. There are rare cases of the mind clearing up just before death, in some acute cases of insanity. A female who died during melancholia was the only instance with which I have met. Her brain was exceedingly pale, but well formed, and the only deviation from the normal found *post mortem* was an arachnoid cyst of the cerebellum. Pritchard tells of three idiot brothers, one of whom, after a head injury, brightened up and became a barrister. Winslow states: "Father Mabillon is said to have been an idiot until twenty-six years of age, when he fractured his skull against a stone staircase. He was trepanned. After recovering, his intellect fully developed itself in a mind endowed with a lively imagination, an amazing memory, and a zeal for study rarely equalled." Such instances can be accounted for by the theory that the brain has previously been poorly nourished by a defective blood supply, and that the defect was remedied by the increased circulation afforded by the head injury. Craniotomy for imbeciles and idiots has some justification in these facts, for if the brain is cramped by an inadequate skull, expansion may enable brain growth; but physicians who have charge of such defectives are, or should be, the best judges whether an operation is justifiable or not, and their opinions as

to the possibilities of educating these congenital cases should always be sought.

Home treatment of patients is usually difficult, if not impossible. As the laws concerning supervision of the insane improved, most astounding instances of cruelty and neglect of insane relatives were discovered at their homes. Imbeciles, idiots, and dements were found here and there through the country, confined in small, dismal cells, scantily clad and fed, and their bodily needs otherwise disregarded. On the other hand there are families who are daily sacrificing themselves in many ways in affectionate care of such unfortunates. Acute cases are often made worse by the scolding and nagging of relatives who are ignorant of the danger they trifle with when insane resentment is kindled. Small places are not fit for troublesome patients. The long corridors of the state hospitals and the expanse of gardens furnish room for exercise and air, where the privations of a small house act prejudicially and compel resort to confinement and mechanical restraint. All possible and reasonable liberty is everything in the treatment of insanity.

It is a trite remark that the insane are subject to all the ailments of ordinary humanity, but notwithstanding this, and the fact that there is even greater necessity for rectifying physiological faults in the insane than in others, it is only in the limited number of the better institutions that such ailments really receive attention. Their helplessness, and the incoherency of insane complainings, often make it imperative that their sufferings be studied by those who have the peculiar education and skill resembling that acquired in the treatment of infants and animals. Toothache, colic, cancers, and the multitude of other causes of pain and distress may arouse frenzy, which in old times was subdued with beatings, and nowadays is ignored; but the tendency is toward future humane and enlightened alleviation.

Respectably organized general hospitals have a full complement of specialists on their staff, and it would be the height of absurdity for one physician to attempt the treatment of all kinds of disease and surgical disorder; but the entrance of visiting specialists to asylums is fought by politicians on various pretexts, but for the real reason that the actual state of things is soon disclosed to such visiting intelligence, with threatened reformation in the care of

the insane, to which, so far as it relates to bare medical treatment, the politicians do not object; but they dread the inevitable upsetting of methods by which vast sums of money are secured through neglect and fraud. Genuine hospital regulation is vigilant in securing to patients the benefit of every cent to which they are entitled; and "spoilsmen" are soon convinced that not only are their profits in danger, but that the world is likely to know too much about the inner mechanism of the political misdirection of asylum funds.

Upon taking charge of the Illinois Eastern Hospital for the Insane, I appointed surgical and other specialists as a visiting staff to instruct and co-operate with the ten resident physicians in the care of 2,143 patients. Fifty were found to be suffering from eye diseases, some of them cataracts whose removal restored sight, and most of the others were capable of relief. Twenty-five had diseased ears badly needing simple medical attention. Ten were rupture cases needing trusses, and numerous other disorders were discovered such as skin, throat, and surgical ailments, and there were in all several hundred that could be helped by skilled and special attention, for rendering which the resident physicians had neither the time nor the special training.

A dermatologist, surgeon, laryngologist, oculist and aurist, dentist, and gynæcologist, with alternates, all from the most reputable and eminent specialists, volunteered their services without recompense. My resident gynæcologist, Dr. Isabel Davenport, reported in the first month of her investigations 157 cases, in all, of endometritis, metritis, fibroid tumors, polypi, metrorrhagia, uterine syphilis, hæmorrhoids, prolapses ovarian, rectal, and uterine; complete procidentia, ulcers, cysts, vaginitis; besides flexions, versions, dysmenorrhœas and minor sexual disorders, every one and all of which needed medical treatment as imperatively as if the patients had been in their right minds. Female physicians were placed in charge of female wards, as it has been a precept that sexual organ treatment of the female insane by male physicians resulted in giving erotic directions to delusions, and the fact that skilled women doctors were obtainable disposed of this pretext for neglect of often serious disorders.

The trustees, consisting of a brewer, a small village banker, and a railway station agent, discontinued the visiting staff.

Malpractice may be intentional, inadvertent, or only apparent, and not real. Upon the inability of the public to discriminate in such matters the charlatan relies for safety. A notorious surgeon in charge of a religious sanitarium has performed hundreds of ovariotomies solely for the large fees and without regard to necessity for the operation. Many of these sexual murders were for the purpose of "curing insanity," though the operator had the most rudimentary ideas of mental disease. In fact, his great success as a business man precludes the possibility of his being skilled beyond the technique of the flashy surgery for which the uninformed public has such regard. He proposed, for $3,000, to cut out the ovaries of a thirteen year-old girl to cure her of ordinary chorea, which vanished in three weeks time under the simplest treatment. When exposed in a medical journal for this projected outrage, he offered the publisher an advertisement of his sanitarium at $500 per year if he would editorially attack the one who denounced him. This is but one of numerous instances of the sort, and is mentioned to illustrate how certain species of charlatanry are intrenched behind religious and medical pretense, wealth, and popular ignorance.

Several cases of chronic insanity are at the Elgin Hospital, who have been castrated and otherwise surgically outraged by some sanitarium "doctors," one of whom is widely known as an "orificialist" who operates on the rectum for almost every ailment, including all grades of insanity from paretic dementia to head injury cases, and for a fee would promise to cure idiocy by operation on the rectum. He keeps a lawyer constantly defending him against malpractice suits, and was closed out by judgments for $50,000 secured by former mutilated patients; but he is not to be so easily suppressed, for there are multitudes who believe his assertion that the anus has more to do with the mind than the brain has, and are anxious to have their sick friends cured by the new method. A young girl with hysterical insanity, from which she might have recovered under proper care, especially by strictly female attendance, was treated "orificially" by daily stretchings of her anus and os uteri to "restore her menses," which, the orificialist claimed, would cure her insanity. A young male assistant performed this service, "to whom she became greatly attached." She finally killed herself in a violent paroxysm

by jumping from a balcony. Her relatives paid $3,000 per year for this scientific treatment, than which nothing better could have been devised to prevent recovery.

There is as much justification for sexual organ ablation of either sex in insanity as in drunkenness, consumption, or corns. So widespread has become this butchery that such mutilation should be prohibited except upon consulting an alienist, as the operators seldom know anything about insanity, or whether the patient will recover naturally or not if nothing is done, or whether the insanity is not liable to be made permanent by an operation. If organs are diseased, their removal may be necessary, but there is no more reason for cutting out healthy ovaries, wombs, or testicles when a patient is insane than for depriving one of eyes, ears, or tongue.

In a paper on "The Conservative Treatment of the Pelvic Organs," by Wm. Goodell of the Pennsylvania University,[1] the bad results of pelvic surgery are well described. Aside from the artificial change of life and its attendant distress, which in young patients is prolonged months and years, he states that "the unwelcome fact cannot be ignored that mental disturbances may be traced to the ablation of the ovaries. This is manifested by morbid broodings, by low spirits, by melancholy, by suicidal impulses, and even by insanity. Every ovariotomist regretfully has met with such painful episodes in his practice. Glaevecke, who has made extensive researches on this subject, goes so far as to say that 'in almost all cases the mind becomes more or less affected, and not unfrequently melancholia results.' Keith[2] has stated that 10 per cent of his patients who recover from hysterectomy subsequently suffer from melancholia or from other forms of mental disease." He further refers to the fact that social and marital opportunities are thus abridged and the remainder of life embittered by castration. The general discussion following the paper brought out the opinion from those present that no healthy part of sexual organs should be removed.

Alex. J. C. Skene,[3] of the Long Island College Hospital,

[1] Transactions of the Congress of American Physicians and Surgeons, 1894, II., 195.

[2] New York Medical Journal, July, 1889, 73.

[3] International Clinics, IV., 261.

Brooklyn, N. Y., remarks upon many cases of ill health after removal of the ovaries, and Jas. W. Ross, of the University of Toronto, is referred to by Skene as the author of an article on the failure of removal of the tubes and ovaries to relieve symptoms.

If, then, there is questionable warrant for taking away these organs, even when they are damaged by local disease, and the dangers of the operation, even under modern safeguards, are enhanced by the uncertainty of results, with the further great risk of directly inducing insanity by the operation, what excuse can there be for castrating men or women because they are insane, and where can the operator find any respectable literature that favors such surgery?

Confusional insanity is recorded as having followed upon emasculation for calculus.[1] A young man during one of the amnesic periods of dementia, induced by constant self-abuse, skilfully removed both testes with a razor and immediately began to recover his intellect, and is now intelligent and self-supporting. Dr. Loewey reports a case of self-castration without benefit until a strong mental impression was brought to bear upon him, when he ceased his bad practices and brightened up. The few instances of benefit after castration are far from justifying extensive resort to this surgical interference. Dements have recovered after the tenth year of insanity without treatment; and mistaken diagnosis would lead to incessant wrongs. Imagine a lot of whisky-selling, gambling politicians invested with the legal right to determine who should and should not be emasculated in and out of reformatories, poorhouses, insane asylums, etc. It has actually been proposed to secure such legislation, and in a Kansas institution several experimental operations were made, of no value to science, as they were ignorantly performed and not reported upon.

"Brilliant" surgical operations have been recklessly made upon the skulls of the insane without the least justification beyond the improperly earned fee, or the notoriety that is sought *ad captandum vulgus*. Death has often resulted from rash brain surgery, where there were ordinary chances for recovery had there been no in-

[1] American Journal of Insanity, Jan. 1897, 466, quoted from Annals of Surgery, Sept. 1896.

terference. "Brilliant surgery" is sometimes like pyrotechnics near a powder house, especially when unassociated with other requisites than brilliancy.

Trephining to relieve compression of a cortical, or even to reach a reasonably accessible subcortical, neoplasm, either of meningeal or neurogliar origin, or to raise a depressed piece of bone, or remove an exostosis, or to evacuate an abscess that can be reached without running the risk of murder, no one should find fault with; but when it is proposed to open the brain for an embolism situated usually near the cerebral base, most often in some Sylvian artery branch, an embolism that may be resorbed if nothing whatever is done, it is surgery worthy of the Middle Ages.

The temporary improvements in epilepsy and paretic dementia that often occur spontaneously are mistaken for benefits derived from whatever happened to be the last treatment, and the unphilosophical rush into print with their announcements of cures of insanity a few days after operating. To state the case as plainly as possible, there have been operations upon the skulls of idiots whose brains were shriveled and hardened, with about as much chance of such brains developing as there would be for such surgeons to read up on available literature before exploiting their brilliancy. Traumatic cases with inflammatory destruction of both meninges and brain have been trephined, with some such record as "The results were favorable, but the patient died a few days later." Syphilis of the brain, which might have been reached by iodide of potassium, has been operated upon when it was certain that the gummata, which are often multiple, could not be reached, or when the arterial inflammation, which is also a condition in this disorder, could not be relieved. When insanity results from brain lesions, permanent change without definite localization has usually occurred; and in a recent hemorrhage of the brain, death has been precipitated by operations restarting a deep-seated bleeding. Temporal-bone explorations have ended in post-mortem findings of extensive meningitis, instead of the abscess looked for.

Fuller, of Grand Rapids, Michigan, contests priority with Lannelongue in operations on the heads of imbeciles; and there is something in craniotomy (not craniectomy) in cases of primary synostosis to allow the brain room to expand, and if surgeons would

allow the alienist to select cases of idiocy and imbecility suitable for operation, instead of rushing into craniotomy with the average surgical unfamiliarity with the insanity, the percentage of successful results would undoubtedly rise. Where the brain has undergone permanent retrogradation,—and of this the alienist is the best judge,—there can be no hope from any treatment.

Imagine the resentment of the surgeon were some neurologist to venture advice in a case of intestinal resection; but the alienist has as good a right to feel insulted when a surgeon, who has but the most superficial ideas of psychiatry, promptly takes up his knife and trephine and proceeds to "cure" incurable dements, imbeciles, and other comparatively brainless unfortunates, without seeking advice from those who make such matters a life study.

An insane woman in the last stages of rapid consumption, while feverish, expectorating blood, and, though excited, too exhausted to raise her head, was heavily dosed, hourly, by a female practitioner with a wretched proprietary compound of bromides and cannabis. A stimulant calmed the patient at once, but the depressant had sapped what little vitality there temporarily remained, and shortened her life.

Aside from the occasional "miraculous cures" by mental impressions in hysterical cases, I encountered one veritable instance of relief through "Christian Science." A fashionable practitioner was overdosing and debilitating a simple case of neurasthenia, and predicted the patient's inability to get well, so the faith cure was substituted. The withdrawal of medicines and consequent rebound enabled the "scientists" to plume themselves upon their superior treatment. Were it not that the ignorance of faith healers too often prevented proper care, their inroads upon the "horse-doctor methods" would do more good.

Dr. James Martineau has this to say of some "faith cures" that came under his personal observation: One case that came under the doctor's own notice was that of an old woman who had been bedridden for years with rheumatism. Medicine had done her no good, but on hearing of a faith-cure woman's successful cures she was anxious to see her. An almost instantaneous cure was effected, the old woman leaving her bed and becoming quite active, well, and free from pain. Now, it happened that there

was a strong anti-Jewish feeling at Berlin, and one day it came out that this faith-cure woman was a Jewess. The result of this discovery was remarkable, for in nearly every case the malady returned. This rheumatic old woman took to her bed instantly on learning the news, and the next day was as bad as ever. Dr. Martineau considered that this showed the double working of a faith cure. He did not doubt that the original cures of nervous complaints were genuine, but they rested on the belief of the patient; and when this belief was subsequently undermined by the discovery that the healer was a Jewess, the disbelief that a Jewess could achieve any good thing proved stronger than the apparent fact that she had done so.

As to the influence of ocular disorder in mental and nervous disease, there are undoubtedly many severe headaches attributable to refractive errors, which are relieved when corrected by suitable glasses; but, on the other hand, every imaginable eye and ocular muscle disorder has occurred without headache or any other disturbance of health. The enthusiast Stevens was fully shown to have made too extensive claims for his operations on eye muscles as a cure for epilepsy, chorea, etc., and honest oculists themselves by this time are fully aware of the insufficiency of his methods; but there is a minority of eye doctors who are oversanguine as to benefits derivable from eye corrections, and, indeed, some of them operate upon perfectly healthy ocular muscles to cure real and imaginary nervous and mental disorders. An eye specialist damaged the vision of a mysophobic case without making any impression upon the mental trouble.

Children with neurotic heredity are often strabismic and have weak ankles, and suffer otherwise from poor muscular balance all over the body. Relief of a local symptom of disease, with expectation of cure, is about as rational as to expect the conversion of a mule into a horse by trimming his ears. The original condition upon which the heterophoria depended still remains; but the aggravating influence of some ocular defects upon debilitated systems should also be remembered, as well as the precept to put the body in the best working order in attempts to relieve nervous and mental troubles. Roosa thinks that suggestion and illusion are at the bottom of many alleged cures occurring in neurotics with abnormal nervous systems, and in whom symptoms are as variable as the changing winds.

There can be no objection to curing strabismus by operation, to relieving headaches from astigmatism by spectacles, or to expecting that general health may be better upon relief from such discomforts; but to claim that insanity or nervous diseases in general can be cured by glasses or operations on the eye muscles arouses the suspicion that unfounded hopes of cures of diseases outside of the oculist's studies or knowledge have been raised for the sake of fees alone. When there is no eye disorder, surgical interference savors of malpractice.

Spiritualists are among the vultures that prey upon the mental and bodily ailments of mankind. Senile dements and climacteric females are a large percentage of their victims. It is remarkable that many professional spiritualists, fortune tellers, hypnotizers, and faith healers are paranoiacs and other sorts of lunatics with considerable belief in their alleged miraculous powers, but also with a money-making ability which, by itself, is never evidence of much intelligence.

Occasionally "faith healers" and "Messiahs" perambulate and practice; some of these are terminal dements of obvious types, usually from preceding paranoia. The megalomaniac would be exactly the one who could impose his belief upon the simple and credulous, and history is full of such instances. Even when robbery or butchery of the insane is not a result of contact with such individuals, in most cases proper treatment has been delayed, or such improper methods, mainly emotional, have been used as to confirm and perpetuate the insanity.

The foregoing relates to malpractice, more or less designed, but there is a species of inadvertent or mistaken treatment in which the culpability is less, but the results are as disastrous and avoidable as in the mercenary instances. Every decade revives some old surgical furor as a cure-all. Notwithstanding the fact that a dead and gone generation has demonstrated the worthlessness of the means, a new name will be given the operation, or a new justification is sought for it, and we have revivals of clitoridectomy, ocular muscle cutting, sphincter stretching, circumcision, castration, spectacle fitting, nose cauterization, burnings of the spine, and other heroic or sensational endeavors to cure insanity, as well as other complaints, by single methods.

The electrical enthusiast does not appear to be discouraged

when shown that his results are chiefly among hysterical females, in the way of removal of headaches or other very temporary benefit to that class of defectives, and that there is no respectable treatment of insanity by electricity.

In malpractice inquiries it would be advisable to ascertain how much the practitioner claimed that he could do with his single method.

The blackmailer has profited by insanity in a family. A gentleman became suddenly insane and related publicly many indiscretions of which he said that he had been guilty. The editor of a reptile newspaper sent the proof sheets of a sensational article, which embodied these confessions, to the patient's brother, with an offer to suppress the matter for five hundred dollars. The editor was challenged to print the article at his peril. He is now serving a penitentiary term for violation of the postal laws, but has made a fortune by imposing upon the indiscreet and timid.

Working out an etiological theory on a uric acid basis for the vesanias and exacerbations of some other insanities might prove to be too narrow, or even altogether fallacious; but it would undoubtedly lead to clearer comprehensions and toward a rational pathology. The voiding of 1 part uric acid to 33 of urea has been assumed as the normal proportions furnished by healthy assimilative and excretory processes; but in the relation of 1 to 20 or 25 of urea the excess over 1 to 33 is from an unusual amount of uric acid in the food or deposits in the body. Substances which form soluble compounds with uric acid should therefore increase its excretion, and, as in the case of gout or vesical calculi, the formation of insoluble compounds like sodium urates diminish solubility and excretion. If the excretion of uric acid to urea is 1 to 45 or 50, retention of uric acid may be inferred. But the increased solubility of uric acid through greater alkalinity of the blood, attended with scanty urinary excretion, as in some diseases, favors the disorders depending upon uric acidæmia. If elimination can be accelerated, the increased solubility might be taken advantage of, to get rid of the poison. Unfortunately the extra uric acid irritates the arterioles to contraction, and accounts for dyspepsia, headaches, epilepsy, and mental depression. Meat, alcoholics, and want of exercise favor the increase of uric acid in the system, while exercise, purgatives, veg-

etable diet, cleanliness, and copious draughts of pure water would prevent accumulations, or increase their exit from the body. Colchicum, sodium, or potassium bicarbonate, carbonate of magnesia, aromatic spirits of ammonia, sulphate of magnesia, lithia (carbonate, bicarbonate, or citrate), would be indicated as antagonists of uric acid; and with due precaution against the weakening which too often follows vigorous treatment, abundance of bathing, hot, cold, or both, prolonged or occasional, according to the strength and effects, with diuretics and laxatives in small but continued doses,—should give good results. Cider has been suggested as a good uric acid eliminant, but the alcohol in some specimens would destroy such effect, if it really exists. Common salt has some advocates for these ailments, and if it acted in no other way the free drinking of water induced would be beneficial.

Bad air and deficient oxygen increases alkalinity of the blood and favors uric acidæmia. Potassium iodide relaxes arterioles and helps to clear the blood of uric acid. Haig's law is that all substances which form insoluble compounds with uric acid, or diminish the solvent powers of the blood, deposit it in the tissues by clearing it from the blood, and preventing its excretion with the urine. Hence the most desirable achievement is elimination, and the simplest are the best means for this; gentle salines, lithia, cleanliness, and plenty of water internally and externally.

Sulpho-carbolate of zinc is a useful anti-fermentative, and it, or even a drop or two of carbolic acid to the quart of drinking water, may quell the putrefying gastro-intestinal tendencies enough to enable some headway to be made against auto-toxæmia. The trials of intestinal antisepsis in typhoid fever have been favorable enough to justify more diligent study of what may be done for the insane in the same way. Most of the suggested processes, however, are crude, and liable to derange rather than benefit the alimentary processes. Too many harsh and irritating substances, or too large dosage, has defeated well-meant endeavors. I think internal antisepsis can be secured by mild means very effectually. Small amounts of aromatic, or other antiseptics and anti-ferments, in continuous doses, will accomplish good, where overdosing will do harm. Corrosive sublimate and calomel in very minute, constant, quantities would be safe, and in many cases advisable, but prompt results are obtained by two to three grain pills of sulpho-carbolate of zinc.

The breaths of melancholiacs frequently exhale the fruity odor of acetone, which in the blood of diabetic patients is the cause of coma. Conjoined with this are putrid emanations enough to convince anyone of the advisability of regulating the diet and restoring healthy assimilation, if possible. Acetones are the products of albuminous decomposition. Carbohydrate meals and lessening meat consumption would diminish both acetonæmia and stomach putridity, notwithstanding the fact that carbohydrates increase glycosuria, and the association of the latter in extreme states with acetonæmia. No cast-iron rule is possible in the matter of meat and vegetable diet, as what may be gained by restriction in one way may be lost through impaired strength, if privation of meat diet goes too far. As a rule the insane should have their meat diet minimized under the supervision of the physician.

An English writer, Mrs. Ernest Hart, affirms the average English ill temper as due to excessive meat diet, and refers to the urbanity of the French as mainly owing to less meat consumption. The fish and rice eating Japanese are polite and happy in consequence.

The uric acid and urates from insufficiently oxidized nitrogenous diet circulating too freely in the blood have often been assigned as causes of moral and mental disturbances.

Lavage, or stomach washing, occasionally induces patients to eat who have previously refused food; and in melancholia with gastric symptoms, good general effects have followed upon lavage; but the golden mean between too great neglect and too frequent use of such treatment has not yet been secured. Hysterical patients sometimes become troublesome in their demands for stomach washings several times daily. It should be considered as only one among many accessory means of treating alimentary disorders, and by no means advisable to practise upon slight occasions.

Gavage, artificial, or forced feeding, is often required when the patient refuses food. I have known patients in the county asylum to be allowed to starve themselves to death, and so testified to the state board of charities, without the least influence upon the political management of that place. Forced feeding can soon be learned by an intelligent attendant, and merely consists in a narrow tube being passed down the throat to the stomach,

through a nostril when its mouth passage is resisted, and the milk, eggs, stimulant, broth, and medicines are conveyed from a funnel into the tube. The old-fashioned stomach pump has been abandoned as too complicated, dangerous, and liable to get out of order. It is best to resort to every means of inducing the patient to eat naturally, sometimes by leaving the food where he can help himself unnoticed. Chronic patients have been known to take their meals for years in no other way than when thus compelled, and it is best to avoid forming the habit; but permitting a patient to die for want of food, merely because he refuses it, cannot be too severely condemned. Thousands have thus perished under the indifference of lay political control of asylums.

By gavage, medicines necessary to save life can be given at times, often in no other way, owing to the resistance of the patient. A maniacal lady refused to take milk any longer because she tasted the few drops of digitalis tincture given with it on one occasion. The acuteness of taste, among other senses, in mania, was evident. No other person who tried the milk was able to taste the medicine in it.

Evacuants are of great importance in caring for the insane, but the obstinacy of their constipation, and the collapse that attends too severe catharsis, with the merely temporary relief afforded, makes the bowel condition in insanity a difficult and often insoluble problem. My best results have been secured by using daily such amounts of cod liver oil as the patient could be induced to take; a tablespoonful three times a day, if possible, and the purest quality avoids the nausea and regurgitations. The intestinal lubrication and conjoined attempt to improve nutrition appeal at once to scientific common sense, and the results are often very gratifying.

Small alterative doses, as a tenth of a grain, of calomel hourly, until about a grain a day is taken, for three or four days, will sometimes overcome liver torpor and improve depressed states. The olden dosage of mercurials was too large, and the continued effect of minute qualities is preferable, stopping the drug when the system is slightly influenced.

Glycerine suppositories and enemas can be used in preference to cathartics, but the lower bowel is, as a rule, the only affected by such means. Abdominal massage in the direc

the transverse and descending colon is a good mechanical means of relief from chronic constipation, and affords about the only good effect of massage in insanity. In melancholia with poisonous materials in the tissues, massage does harm by rendering the poisoned circulation more active; and experience teaches that massage does not help, but often appears to aggravate, melancholia. In cases where there is merely a quantitative blood defect, and in convalescence, massage might be used with more prospect of aiding the patient.

Rochelle salts are preferred in many hospitals for insane to the epsom or glauber, which are too griping and weakening.

The analysis of many mineral spring waters, and the benefits of their use in some cases, should suggest a rational continued action of an artificial mineral water which would avoid the often absurd expense of the bottled and transported waters; and by omitting the useless silicates and other adventitious substances, just as good results, if not better, may be secured for patients needing such waters. Iron salts having an astringent effect upon the bowels should be omitted. The supposition that table salt prevents uric acid accumulations, and accounts of sailors not suffering from gout and other uric acid troubles, would make it advisable to use considerable sodium chloride with the other minerals in solution in the artificial water to be given the insane, as aids to kidney and bowel elimination.

A small quantity of lithia, chloride of sodium, and rochelle salts, could be put into the drinking water of the patient, or the following amounts of salts by grains could be allotted to the gallon of water, reducing such as were in excess of solution and which precipitate on standing, often through commercial differences in grade: Lithium carbonate 8, lithium sulphate 3, sodium chloride 25, potassium chloride 10, sodium sulphate 15, magnesium sulphate 60, magnesium carbonate 20. Other formulæ may be constructed with more or less of the same salts; the foregoing is merely offered as a suggestion based on the reported analysis of spring waters which have proved helpful as a gentle eliminant; and if the minerals are put into the water by the physician he may draw more intelligent conclusions as to the benefit to the patients than when expensive lithia waters are given, which vary so widely in effects as to raise the suspicion that either the springs are

inconstant or the venders of the waters have substituted or omitted, as they are greatly tempted to do.

Some patients who suffer from occasional violent attacks of migraine are badly constipated, and are weekly or monthly relieved of large and exceedingly offensive fæcal impactions, worthy of the name of stercor diabolus, formerly attached to asafœtida. It would be more sensible to take a laxative water, such as the above, and secure regularly relaxed bowels, than to invite the self-poisoning the retained bowel contents would be sure to create.

Hypnotics should not be intrusted to the discretion of attendants. The disturbed state of patients tempts them to disregard the future in securing immediate results.

Opium was formerly recklessly used in asylums, in large and increasing doses, and tolerance of the drug was recorded as far greater than among the sane. But with the certainty of fixing a habit which it would cause added suffering to break off, and with the constipation it induces, and the absence of satisfactory evidence of its serviceability, beyond an occasional and transitory benefit in treating mental disorders, there is little encouragement to rely upon it as much of a medicinal help in psychiatry. It has added to the gastric distress of melancholia; and in checking the secretions it is objectionable, where, as so often happens in insanity, elimination is a prime necessity.

In removing a violent patient to an asylum, the stupefying influence of morphine given dosimetrically,—say a quarter grain half hourly until the physiological effect desired is secured,—is sometimes justifiable.

In opium poisoning, the permanganate of potassium internally with capsicum enemas has proved to be the swiftest antidotal method. Atropine has often been used too much; and where there is uncertainty as to the amount of opium taken, atropine should be guardedly given.

Rayner, of Hanwell, regarded chemical as worse than mechanical restraint, and he inveighs against sleeping draughts as "utterly pernicious."

Chloral should be wholly abandoned in favor of the recent hypnotics, which are far safer. Its injurious effects outweigh any benefits secured from its use, and it not only deranges the stomach

but, in my observation, it has made patients chronically insane who otherwise might have recovered. Chloral has also weakened the heart action, and produced wakefulness, which increased with the amount given.

Sulfonal, or the more soluble trional, is serviceable in lessening the activity of violent maniacal attacks, and can be given in hot tea, coffee, or milk without the patient's knowledge, several nights in succession. It should be remembered, however, that the bowels are rendered inactive, and that constant stupefaction is not a curative measure. While sulfonal and trional are occasionally effective in mania they do not act so well in melancholia, doubtless because the impaired blood state of melancholia requires something more than a depressing poison to cause sleep, and the constipation of the disease and the remedy combine in creating bad after effects.

Chloralamid is, in my opinion, an ideal hypnotic, though it does not appear to be strong enough for maniacal cases. The formamide in chloralamid, being a heart stimulant, may account for this and the further fact that in weak states of the circulation, as in melancholia, the chloralamid acts superbly. It is not an irritant to any mucous membrane, nor does it derange the stomach or intestines in any way. It should be given in cold solution, never in hot, and, though I know of no harm occasioned by continuous use, nor of any such thing as the chloralamid habit, it is best to secure sleep, if possible, in other ways than with drugs of any kind.

A warm bath, if there is nothing in the condition of the patient to forbid its use, has often compelled sleep, but it has just as often failed to do so. Dr. Loewey, of Elgin, finds that hot water enemas in some cases exert a calming and soporific effect.

The danger of patients forming the narcotic habit should prevent indiscriminate and prolonged use of hypnotics of any sort, especially opiates, chloral, and the bromides. Their debasing effects upon both mental and bodily functions have too often prevented recovery from insanity, or substituted dementia for convalescence.

Cannabis Indica is a good sedative, especially in painful mental states, of which *folie du doute* is an example; but cannabis that can be relied upon is about as rare as honest pharmacy. Ringer

is accredited with the remark that if you find a good preparation of cannabis you should keep it in your safe. It is unfortunate that so useful a drug should be discredited by sophistications.

The bromides are nearly as harmful as chloral, and have been used altogether too much. They bring about deterioration of blood, health, and mind, when continually taken, and even where, in epilepsy, their use is unavoidable more caution should be exercised, and the dose stopped at intervals. Dr. J. S. Jewell believed that overuse of bromides has developed insanity in epileptics.

Hyoscyamus has little to recommend it beyond its having been used with other hypnotics, so that its value is not fully made out; but the hypodermic injections of hyoscyamine and hyoscine should be seldom used and then cautiously.

A few hours spent out of doors will most often secure a healthy drowsiness and inclination to sleep.

At Leavesden, England, Dr. Case attached considerable importance to hydropathic treatment for excited patients and for those who did not sleep well.

Digitalis will act as a calmative sometimes by strengthening and slowing a rapid weak heart action.

Indirect sedation follows tonic treatment if weakness is the cause of wakefulness or excitement; a dose of quinine or a stimulant will meet the requirements where depressants add to the trouble.

Ergot has occasionally a good influence on the circulation in paretic dementia and congestive disorders of the brain, but only temporarily, as, where destructive processes exist, ergot can do little to stay the destruction.

Stimulants are more useful than depressants because insanity is essentially a weakness. But inflammatory states of the brain and meninges, as in traumatic insanity and where there is danger of reinstituting the alcoholic habit, contra-indicate stimulants.

In acute delirious mania (delirium grave) and in the exhaustion of almost any kind of insanity, stimulants may be necessary. Some cases of maniacal excitement and sleeplessness can be relieved by liquor. A glass of milk with a little whisky will often send a melancholiac to sleep after an early morning awakening. Many patients have a propensity to awake promptly

about 4 A. M. and begin noisy behavior. A cup of hot or even cold milk will usually cause immediate subsidence and sleep. I have seen a case of incipient melancholia in a female completely arrested by a single overdosing of whisky, to which she had been wholly unaccustomed. At the county asylum a periodical insane man whose heart would beat tumultuously during his outbreaks could be calmed instantly with an ounce of whisky, which steadied his heart action, and his intermissions would last for weeks or months.

Treatment cannot be based upon the mere name of a disease, for mania may proceed from weakness and be benefited by a stimulant, while at times, in either mania or melancholia, stimulation would be improper.

Respecting the diminishing use of stimulants at Woodilee, Scotland, Dr. Rutherford remarks: "Insanity is essentially a disease of diminished vitality, and when present the system demands invigorating treatment. Experience proves that there is nothing so invigorating as active outdoor employment and abundance of fresh air."

Tonic treatment of the insane is usually disappointing, the iron preparations causing constipation unless the higher priced modern ferruginous forms, such as the peptonates or ferro-mangan, are used. Strychnia and quinine used in treating insanity do not give the good results observed ordinarily in anemia or debility; and the insane also appear to be more liable to the secondary and undesirable effects of such medicines. Phospho-albumen, which is derived from the brains, cords, and testes of young rams and bulls, is a tonic food of the best kind. Very satisfactory results have followed its use in acute insanities, particularly when due to overwork or worry.

Kola is more of a stimulant than a tonic, and contains caffeine. Like its predecessor, coca, it is but a temporary contribution to pharmacy and has been advertised into popularity.

Counter irritation with blisters, setons, burnings, etc., belongs to past centuries. It was observed that carbuncles, boils, and abscesses were followed by recovery in some cases, and the natural, but as trial proved, erroneous, conclusion was drawn that induced disorders of the sort would induce recovery. Spontaneous inflammations are far more satisfactory than artificial. A

milder old-fashioned counter irritant method to cause sleep consisted in a narrow mustard plaster the full length of the spine.

Depletion is another abandoned practise. Derivation to the bowels or diffusion of the blood by hot baths have superseded blood-letting. In a few cases, leechings are still used. Antimony was an old and much abused depressant. Squibb's fluid extract of conium maculatum in 15 minim doses is the best motor paralysant, to be given only under the direct observation of the physician, and never trusted to attendants. 30 to 45 grain doses of sulfonal or trional are safer, though nothing of the sort is to be recommended for continued use; the conium being too weakening for more than one or two occasions a month, though the quiet it causes enables the patient to gather strength; and the sulfonal and trional depress the intestinal tone, favoring bowel atonicity and dangers of auto-toxæmia.

Unguentum hydrargyri, whether for inunctions or vermin destruction, requires assaying of each invoice by dissolving the fatty excipient in a specimen, for the mercury percentage is often fraudulently low, and lice will thrive on a cheap ointment. Thorough overhauling of premises, free use of hot water, soap, and fine-tooth combs, with careful inspection of every new patient, secures the best protection against these common intruders into public institutions.

Chlorine preparations are the most effective disinfectants, but the best of these are expensive proprietary compounds.

Stearate of zinc, permanganate of potassium, carbolic or boracic acid, facilitate healing of bed sores or sloughs. Lead or zinc plaster can also be used for the purpose, but absolute cleanliness should prevent most such cases.

Emmenagogues are rarely necessary in treating the insane; amenorrhœa is a mere symptom which rights itself when the other symptoms abate. Ferruginous tonics may incidentally restore the menses by improving nutrition, but as a rule menstrual suppression in insanity should remain untreated. Local treatment by sounds, dilators or electricity for amenorrhœa during insanity is simple quackery. Painful or too profuse menstruation should be remedied the same as when occurring in the sane. Unwholesome direction of the insane mind is to be avoided.

Thyroid glands of the sheep have been successfully used in

some cases of imbecility, idiocy, cretinism, and hebephrenia, and are worthy of more extensive trial. Of course, traumatic cases, and, in general, patients whose insanity is not connected with developmental crises, cannot be helped with thyroid extracts or other preparations from the gland. In myxœdema, remarkable benefit follows the use of this agent. It accelerates the heart action and improves nutrition. The dose should be gauged by the effects produced. Fifteen grains per day have been found useful in prolonged melancholia and mania.

Hydrotherapy would be useful in favoring elimination, equalizing the circulation, and relieving congestion, provided each case were studied by a physician with reference to the special needs of the patient, as to temperature of both patient and water, the strength and liability to collapse, the effect of the bath, the prevention of chills through change of temperature while and after bathing; but in the routine way baths are given by careless attendants, and when the patients are many and nurses few, it is not strange that the benefits derivable from proper bathing should be so great in a few instances and so harmful to the majority of acute cases, not to mention the occasional scalding of a patient to death. Judicious use of water at suitable temperatures and for definite purposes, under intelligent direction, will eventually become a powerful restorative agent in mental disease treatment, accompanied with the danger of its being improperly used as a universal remedy, as it has been, because it did good in some cases, or perfunctorily and harmfully resorted to without regard to indications for or against it. The difference in the action of baths is shown by its quieting a patient at one time, and on the next occasion throwing him into a frenzy.

Spitzka speaks of prolonged baths of the same temperature as the body, for as much as twelve hours at a time, acting better as a calmative than medicine. The bath should not be used if the patient's temperature is under 98° F. If, as appears highly probable, deleterious matters in the body are important factors in acute insanities, soakings rationally given, and flushings of the person internally, by reasonable means, should afford good results; but irrational bathing, douching, and water administration, as well as other misdirected special methods, may kill.

Rest in bed is advised by Raynor, of Hanwell, and Neisser,

of Berlin, upon the Weir Mitchell plan, for neurasthenia. Selected cases may be suited to this treatment, but a bedridden habit can be easily formed, when, as is sometimes practised, a patient is put to bed and no further attention paid to him. The difficulties and inconveniences of keeping the insane thus confined are too great to make the method practicable, and it is sheer nonsense to attempt it generally.

The steam whistles and bells of asylums disturb acute cases, and a disadvantage of a large number of patients together is the impracticability of individualizing treatment. Many patients who are made to arise with the others, should be undisturbed.

Moral influences are great aids to mental recovery. Kindness, advice, management, and thought for the patients' welfare are appreciated much more than would be supposed. Patients form attachments and repugnances according to the intercourse held with them. Vulgar harshness has confirmed insanity, and intelligent solicitude and gentleness often does more than everything else together to start convalescence. Amenability to reason, persuasion, and education, differ widely among patients, but I have known the greatest benefit to be secured in some patients who were allowed to read descriptions of their morbid states in medical works, and were instructed by physicians in regard to the causes of delusions and other subjective disorders. A correct interpretation of morbid feelings may lead to their suppression. Some convalescents are particularly capable of being thus aided, but the majority are uninfluenced in such ways.

Diversion, in the way of weekly entertainments, or dances, often calls forth all the latent self-restraint it is possible for the patient to exercise, and are therefore valuable curative aids. Music is enjoyed by many of the insane, and upon some it has a calming effect, while it irritates others. The exaggerated ideas of the influence of music upon insanity are flights of romantic imaginations of those who never lived among these unfortunates. Music was tried in the treatment of insanity as early as 1000 B. C.

Periodically some ill-informed enthusiast proposes an extensive use of music in asylums as a curative means. For at least three thousand years repeated trials have been made of the influence of music upon the insane, with negative results. As part of a useful method of entertaining such insane as can appreciate and

be helped by diversion of any sort, music is well enough, but it is as often disagreeable and harmful to other patients. Lively airs have started furies, and mournful music has added to depression.

Conveyances for affording rides to patients are gains to the entire population in the beneficial results. In their outings, patients should be prevented from sitting upon damp ground, as they are inclined to do. Occasionally the opportunity for suicide is taken advantage of when patients are employed or exercising near rivers or ponds. These instances are rare, and would not justify depriving multitudes of healthy work and enjoyment to avoid risks which would be increased in other ways if outdoor recreation were curtailed. Though bicycling could be indulged in only to a moderate degree when insanity had been developed, its advantages in treating some incipient cases are well known. The hypochondriacal, dyspeptic, hysterical, and others may be gradually accustomed to exercise by its means, and prevented from forming pernicious habits of introspection.

Hygiene, in thoroughly clean, fresh, wholesome, pleasant surroundings, is even more necessary for the insane than the sane. Raving patients have been taken from filthy cells, and when clothed and respectably treated have become subdued, and sometimes have rapidly recovered mental health.

Hypnotic suggestion accomplishes nothing with the insane. Therapeutic suggestion, such as predicting that a simple remedy will have a certain desired effect, is more sensible and effective.

Employment. Dr. Joseph Lalor of the Dublin, Ireland, asylum, the founder of schools for the insane, was also strongly in favor of keeping the patients employed. Lalor's achievements are admired by alienists the world over, and imitation of his educational methods for the insane would be the best monument to his memory.

At the Alt-Scherbitz provincial asylum of Saxony the authorities endeavor to interest the patients gradually in work. As a means to this end they are encouraged to look on while others labor. 75 to 80 per cent are employed, and the health often steadily improves as they voluntarily increase their exertions. At Colney Hatch, 35 per cent of the men and 44 per cent of the women patients are engaged in useful work. At Hanwell the

proportions were 77 and 66 per cent, while at Sussex 76 per cent of all were working.

Farm labor is highly beneficial to both curable and incurable cases, besides being an economical source of supply to the asylums. Overwork should be guarded against in all cases. Head injury cases should not be employed in the hot sun rays, nor should epileptics be allowed where their falls would occasion injury to them, as upon harvesters or about machinery generally.

A small remuneration adds to the happiness of insane laborers, and renders them more willing to do what is suggested. In all cases, congenial occupation, according to capacity, should be afforded, and they should never be forced. A contractor of a county asylum was allowed by a warden (who later served a term in the penitentiary for robbery) to appropriate the patients' labor for his private profit. Nor were physicians permitted to select those who were capable of working. Among other bad results of this illustration of lay "executive ability" was the death of a typhoid fever patient while digging a trench for the contractor.

Many patients should be exempted from work on account of sickness, feebleness, age, infirmity, low spirits, too great excitement, or too little mentality; while some are able but unwilling, or relatives unwisely disapprove of their working.

Restraint or nonrestraint may be carried to extremes. Mechanical appliances are sometimes necessary and humane to prevent suicides, assaults, and mutilations, and to restrain surgical cases from interfering with splints and bandages. Mittens or soft wristlets attached to leather belts to control improper use of the hands and arms are the most common and least objectionable. Soft shoes are provided for those liable to kick others, and *papier maché* basins for violent cases. Seclusion in screen rooms and darkened rooms are in use at Hanwell and elsewhere for disturbed cases, but the padded room is becoming a thing of the past, as patients often reduce it to an offensive litter. At Sussex, "wet and dry packing" are the only forms of mechanical restraint, and these are used for medicinal purposes.

Some patients cannot be allowed to have their clothing in their rooms at night, as they destroy garments. Each patient should sleep alone, for even quiet roommates in asylums make murderous assaults upon one another at times.

Where no restraint is used, relays of strong attendants are necessary, and being held by them increases resistance and ideas of being persecuted, besides adding to the expense for employees.

The Utica crib, in which violent cases were fastened, and the straitjacket, are not so frequently used as formerly. The camisole, or laced canvas straitjacket, has been a means of torture and death in many instances. Vermin attack patients unnoticed when thus restrained, and I recollect a puerperal case at the county asylum, who was found strangled to death from writhings in her straitjacket. Greater freedom is now recommended for patients, and some wards are left unlocked.

The paroling of patients as their condition admits of it, for stated hours and to certain precincts, is of much advantage. Females require extra care for their protection, and many things should be considered before allowing them a parole. Where cards are issued to paroled patients, they should be written in ink; and a single card should never be issued for more than one patient. In large asylums they sometimes rely upon the probable failure of the guards to recognize them and lend their cards to fellow patients.

Demagogic use has been made of the abolition of restraint. At an Indiana asylum a tyro in charge publicly burnt all the restraint apparatus to an accompaniment of brass band music and speeches. Numerous blackened eyes, broken heads, a suicide, and a homicide resulting, induced the authorities reluctantly to purchase new apparatus.

Everything of the kind should be under the control of physicians, and should not be used except by direction of the physician, written in a restraint record book regularly kept. Chemical restraint or drugging is far worse than mechanical restraint, and the too prompt effect of hypnotics leads to their overuse, particularly when there is captiousness about the use of mechanical restraint.

Classification of patients should be made entirely with regard to the best interests of the unfortunates themselves, and to facilitate recovery if possible. Social classifications have worked harm even where caste and class distinctions are as rigid as in Europe. Criminals and the vicious generally should not be allowed to mingle

with patients whom they can harm morally or otherwise. Every institution must adopt its own grouping of patients, according to circumstances and requirements; and the old essays on the subject are not applicable to modern conditions. A sentimental female lobbyist annoyed the governor, legislature, and hospitals with her plans for a Grand Army veteran building in each Illinois institution. She was finally induced to devote her energies to investigating the care of old soldiers in county asylums and poorhouses.

At Colney Hatch it is said that the insane effect their own classification when given opportunity; but this could be permitted only to a limited extent, unless it is meant that they are necessarily grouped according to behavior. At Woodilee, "wet and dirty" patients are awakened every two hours, some of them at least, and others at midnight, to attend to themselves. Regularity may thus be substituted for irregularity of habits. It would be highly unjust to keep offensive cases of this kind on the same wards with patients who are cleanly. Removal from one ward to another according to behavior, by way of promotion and reward, rather than as punishment, often pacifies by change of surroundings, and induces self-restraint. Much harm may be done by indiscriminate association of quiet and turbulent cases, and sometimes the last chance for recovery has been destroyed by the proximity of a violent case. A county commissioner demanded and secured the best ward in the asylum for his insane father, a chronic and destructive maniac, who soon disarranged the convalescent ward and the entire place in attempts to adjust the asylum to new and bad conditions made by this single misplaced patient. At a state hospital the friends of an insane politician who had been a state senator, and who was very unsuitable for a ward among quiet patients, insisted upon similar unjust favoritism. This was refused and the result was misrepresentations to and threats from sundry legislative and executive office holders. Political influence is used to secure special privileges, regardless of the suffering and wrong to others. Placing a chronic maniac upon a convalescent ward could do the former no possible good, but is certain to damage the quiet patients; but the question of good to others never enters into the calculations of the ordinary politician, except as a catchword and pretense.

Uniformity of dress is deprecated by most hospital authorities as depressing, and it is considered better to clothe patients with regard to their comfort rather than to keep apartments too hot in winter. Clouston and other thoughtful alienists oppose the indulgence in grotesque costumes affected by asylum kings and queens. Proper clothing has a good influence upon patients, while parading in tinsel and tassels, as spectacles for asylum visitors, is degrading and cultivates insane delusions.

Concerning colonies for epileptics, which are being organized in various states of the Union, Dr. F. Peterson, of New York, the president of the Craig colony, suggests that there should be provided for these individuals who are cut off from ordinary pursuits and social pleasures, special homes, schools, and industrial education in any line preferred, and that every case should be carefully studied and treated according to the best scientific methods. The colony lands should be extensive, and accessible to friends and relatives, as near to the plan of a country village and as unlike anything savoring of "institution" as possible; each home circle to be limited to ten or fifteen persons, with hospital, shops, library, lyceum, etc., and the colony should be made self-sustaining as soon as practicable, and permitted to develop from small beginnings, rather than built up too rapidly on a large scale.

The epileptic insane are often peculiarly unfortunate in being too sane for asylum residence the greater part of their lives, and yet unsafe to be at liberty all the time. It is observed at all places where epileptics are gathered, that they are mutually helpful in their common misfortune, and take admirable care of one another. Patients co-operate in measures intended for their protection and the safety of others against anticipated furies, while there is a minority who always require watchfulness, and are too far diseased to be trusted at any time without constant supervision.

To a great degree the bromides are indispensable in the treatment of epilepsy, and are to a certain extent effective in epileptic insanity, but routine and incessant drugging with them cannot but be harmful. The potassium bromide deranges the stomach more than the sodium salt; and the least objectionable of all the bromides is the ammonium. It does not deprave the circulation by lessening the blood globules to the extent the sodium and potassium

salts do, and the ammonia antagonizes the depressing influence of the bromide, both as to the cerebral and general circulation.

Every case of epilepsy should be treated according to its particular needs. What will benefit one may harm another, and methods radically opposite to those which have been used may often succeed. Nitro-glycerine in one-hundredth grain doses given for a time has in a few instances completely cured the patient. Digitalis, with or without ergot, antipyrine, or acetanelid may, for a time, be substituted for or given with the ammonium bromide; and, if there is anything in Haig's idea of uric acid as a cause of epilepsy, eliminants are well worth a prolonged trial.

The origin of the attacks should be sought, and removed if possible, and the nervous equilibrium maintained. Excitement and depression are equally to be avoided. Stimulants and tobacco are baneful to epileptics, and long continuance of the bromides or other depressing medicines may aggravate the disease. Rest from all medication is needed at intervals, and it often happens that a change of remedies is followed by a long remission of symptoms, and, for the time, the last treatment will be accredited with the cure. The postponing of attacks has led to many mistakes and the raising of false hopes or enthusiasm over some new method of "curing" epilepsy, which in time joins its comrades in the limbo of failures. A drug that for a time stops or lessens convulsions has been known to increase them later; and this is as true of constant bromization as of other saturations.

Amyl nitrite inhalations will avert epileptic attacks if taken just as the warning appears, though in many cases the patient is unaware of the impending convulsion. The continued use of nitro-glycerine has benefited some cases of epilepsy, but probably the majority are made worse by this heart stimulation. Either of these active medicines would be disastrous to senile or paretic dements if their apoplectiform or epileptiform convulsions were mistaken for simple epileptic attacks.

It is necessary to recall the fact that insanity may b
associated with the epilepsy, and that an epileptic i
from an acute psychosis, such as melancholia or ma
epileptic insanity is not every instance of insanity wi
Hence the treatment is to be regulated accordingly.

The astounding ignorance and superstition still existing with regard to disease is shown by numerous applications at jails for pieces of hangman's rope to be used in preventing epileptic attacks.

Katatonia and stuporous and confusional insanity have occasionally been abruptly cured, or at least relieved, by inhalations of amyl nitrite, and the use of nitro-glycerine in stuporous cases is well worth trial. Observing that excitement or other suffusion of the brain relieved a case of doubting insanity, for the time, from the harrassing indecisions, I tried nitro-glycerine, and finally settled upon one two-hundredth of a grain each morning, with lithia water, and bicycle riding, as treatment, and the results were surprisingly good.

After a head injury, care should be taken to avoid anything tending to overstimulate the brain circulation, particularly when headaches or irritability develop. Overheating from direct sunlight or otherwise, liquor, costiveness, irregularity of habits, irritating influences, business aggravations, and close application to any pursuit, are to be avoided, and, as aids to regulating cerebral circulation, occasional use could be made of ergot, bromides, antipyrine, acetanelid, phenacetine, hot enemas, chloralamid, cathartics, or derivative treatment generally, to relieve the insomnia and other effects of cerebral congestion. Massage from the shoulders downward, and hot baths to diffuse the blood, also prove useful.

Lead poisoning, which sometimes causes insanity, has been successfully treated with potassium iodide, baths, diuretics, and laxatives. The blue line on the gums is sometimes the only indication of the origin of the trouble, and suggestion for treatment.

Acute alcoholic cases have been successfully treated with abundance of hot water internally, and warm water externally, with sustentation and elimination. Strait-jackets are liable to induce pneumonia when used to restrain delirium tremens patients.

Admissions of patients should be preceded by a thorough physical examination and bathing. Any bruises or injuries found should be noted, as a means of protecting those who take charge of the case from unjust accusations. It has often hap-

pened that patients have been brought injured or dying to public institutions, and the blame for the condition of the patient has been misplaced.

Some institutions make it a rule never to accept a pregnant insane patient under any circumstances, and to discharge such patient to the county or relatives when the condition is discovered, because no matter how short a time may have elapsed since the admission of the patient the bare fact that a birth occurs in the place gives opportunity for malicious gossip. The stigma of being born in an asylum should be avoided for helpless infants.

Voluntary commitments are rendered ineffective when a short notice suffices for liberation. A mentally diseased patient is not capable of knowing what is best for him. The insufficiency of jury commitment methods is illustrated by the fact that a sane person is occasionally found among those recently admitted. Such persons are promptly discharged, and the popular idea that there are many sane persons improperly held in asylums is a great error, at least as far as public institutions are concerned. I have known many patients who after recovery seek to remain, because they have nowhere to go, and of alleged unjust incarcerations which upon investigation proved not to be such. For example, a pretty young married woman in 1896 worked upon the public sympathies against her husband, who had sworn her into an asylum. She was quite rational when making her complaint, but failed to tell that she had been several years in an asylum previously, and that she was periodically insane.

Discharges of patients are sometimes premature. Great difficulties often arise in deciding whether they are fit to be released. Sometimes patients suppress their delusions successfully in order to secure dismissal; others are liable to be held too long or too short a time because of inability to determine the real state of their mental health. The importunities of friends, particularly in head injury and alcoholic cases, secure many injudicious liberations. Occasionally a sapient grand jury, or other official visitors, with hysterical reform notions, unable to see or comprehend the real abominations under their noses, but with a keen scent for imaginary abuses, effect a general release of homicidal, suicidal, and otherwise dangerous patients. It is the old story of

novices knowing more about subjects than those who have studied them during a lifetime.

Correspondence of the insane is a source of annoyance to asylum officials. It would be unjust to the patients and the public to allow the bulk of trashy, abusive, and obscene letters that the insane write to be mailed without inspection. The dominant idea in promoting communication between patients and their friends is to protect them from unjust incarceration and abuse. Superintendents find their most disagreeable duty to consist in looking over the writings of the patients, some of whom are given to enormous productions full of rambling complaints and delusions; yet occasionally, in the most incoherent of these, a clue may be afforded to abuses that might otherwise be undiscovered. One patient forged letters purporting to come from his father, demanding the liberation of his son. Many write, pleading for freedom. Paranoiacs are the most plausible inventors of persecutory tales, and by their letters, and sometimes pamphlets or newspaper contributions, they often succeed in wasting the energies of mistaken philanthropists.

The friends of patients also burden asylum officials with unnecessary letter writing, at times in a sincere desire to be informed of the progress of a case. One hysterical lady wrote a dozen pages daily for several months, and telegraphed for immediate answers concerning her hebephreniac son. The majority of writers are anxious about some financial concerns of their insane relatives. An old English alienist observed, that after a time, letters and visits from friends and relatives grow infrequent, and finally cease altogether in chronic cases, but that the mother or an old maid aunt is most often the one to continue inquiries and visits to the hopeless patient till his death.

Experience teaches that reports to those entitled to hear from patients should be made only in answer to direct inquiries, as routine reports are not only unnecessarily expensive, but useless, and are often returned undelivered, or, in some cases, resented as not desired.

Visitors to insane patients, anywhere, often do unintentional harm. Friends and relatives exert an irritating effect upon the insane in unexpected ways, and calmness has frequently been succeeded by weeks of disturbance after the visit of a well-mean-

ing relative. There are times, which the physicians are prompt to recognize, when the patient is made better by seeing his friends, and they are usually notified to come at once upon such occasions.

Several thousand visitors and pleasure seekers afoot and in vehicles have been known to throng and race through public asylum grounds, especially on Sunday, and the attendants on that day have their hardest work in controlling the patients thus disturbed. Members of the legislature, with ladies, children, and servants, altogether numbering several hundred, "visited for inspection" some of the state institutions, taking possession of the place, converting attendants into nurses for their infants, holding a banquet in the general dining room of the hospital, drinking the dispensary liquors, rioting through the grounds, and actually taunting some of the patients into furies. The injurious effect of such a visit was observable for months afterwards, in many ways. A small committee of inspection could accomplish all the legitimate work where a rabble does only harm. The restriction of indiscriminate visiting became so serious a necessity that a request was published by the superintendent as follows:

"During the summer the grounds of the Illinois Eastern Hospital for the Insane are overrun with pleasure seekers, and among them are persons who, in the majority of instances, intend no mischief, but whose thoughtlessness has precisely the same results as though they were malicious.

"Near the wing wards are paths intended as short cuts for employees, and, in defiance of the notices posted at the entrance of these walks, visitors often saunter along close to the open windows, and converse with patients, sometimes gibing them, and otherwise behaving improperly.

"Great throngs of sightseers, whose ideas of mental disease are mainly extracted from sensational novels, and who are prompted by a very discreditable curiosity, troop through the central building and expect to be admitted to the wards; in many cases stating that they wish to be shocked by horrible sights, and plainly requesting to be shown the 'worst cases.'"

"Citizens should remember that this is nearly the twentieth century, and that while the care of the insane has advanced to such an extent that the mentally afflicted are treated as sick

human beings, such behavior on the part of visitors befits better the tenth century, when these unfortunates were publicly and legally flogged, and the populace gathered to deride those 'possessed by devils.'

"The institution on the banks of the Kankakee river is a hospital for the sick in mind, and not a menagerie, or even an asylum. Many of the patients there are in the first, and therefore most curable, stages of their disorder.

"Quietude, kindness, discipline, and in many cases undisturbed work of some kind, are necessary curative means; and if the crowds of visitors are recklessly admitted to the wards, noise, irritation, confusion, and unavoidable disturbance of the orderly workings of the place must accompany them.

"If such persons cannot conceive how they would like to be treated themselves, were they insane, they might imagine how they would resent some loved one of their own being on exhibition before a miscellaneous lot of strangers, and their chances of recovery interfered with through such idle curiosity.

"No hospital for ordinary diseases in the cities would tolerate such intrusions an instant, and no exception should be made where the sickness is mental, particularly when the insanity is often merely a result of some physical ailment, which is undergoing treatment.

"When sufficient reasons are presented to American citizens to induce them to submit to methods more in accordance with the progress of humanity and enlightenment generally, they usually very readily surrender privileges that previously afforded amusement, particularly when they realize that unnecessary suffering to others is a consequence.

"This disposition to swarm into hospitals for the insane, to gratify curiosity, is a survival of savage and barbarous customs, such as caused multitudes to gather at cruel gladiatorial combats, bull fights, executions, etc.; and it is merely because people do not stop to think, and have not had proper appeals to their reason and sense of justice and propriety, that the inclination mentioned persists to-day. It has been found necessary, therefore, to adopt the following rules:

"1. Properly accredited relatives and friends of patients are always welcome, though it is preferred that they should come on

week days, and special permit cards are required for Sunday visiting.

"2. Others will be admitted at the option of the officer of the day, upon the regular visiting days, upon receipt of a written request, stating name of applicant, object of the visit, and its urgency, and requests sent by mail to the superintendent will have precedence of those previously unannounced.

"3. Children under sixteen years of age should not be brought, and parties must be reduced in numbers as far as possible. Frequently personal danger to visitors cannot be provided against, through the numbers admitted disabling the ushers and attendants from protecting them.

"4. Physicians and medico-legal students are heartily welcome at all times, as their visits promise efforts toward a better future for the insane, everywhere.

"5. To further enable patients and employees to have a weekly rest, which everyone enjoys elsewhere, it is necessary to close the gates on Sunday against all pleasure seekers, whether in conveyances or afoot. In case of business that cannot wait until Monday, admission will be granted upon application to the superintendent."

The storm of opposition which the foregoing occasioned was surprising and unexpected, but was later explained by the fact that the great diversion of travel had broken up numbers of drinking saloons in the vicinity, one of the hospital trustees having pecuniary interests in these saloons. It was pronounced insanity to attempt to benefit a hospital full of patients, against the interests of influential politicians who owned breweries and saloons. An effort to build fences that would keep patients and public property from being transferred to the village, and prevent nocturnal prowling and stealing, was a culminating outrage to the politicians' feelings.

Each asylum differs from others in its requirements, and no particular rules can be laid down for plans and buildings that would be applicable in all cases. Certain general principles, however, apply to all.

A prison-like construction is particularly to be avoided, whether the system is congregate or segregate. Two stories should be the height limit, for the burning of taller structures, as in the

case of the six-storied Longue Pointe asylum, with its loss of hundreds of lives, and numerous other instances, shows the impossibility of insuring proper means of escape for patients, except by keeping them near the ground. They are as helpless and unmanageable at such times as animals.

Clouston remarks that in the acute stage the patient needs more of the hospital; in the convalescent stage more of the ordinary cheerful home.

While the old-fashioned wing wards and long corridors are giving way to separate domicils, both systems possess advantages that may result in the retention of a composite plan. The accessibility to a central rendezvous for physicians and offices, and the more rapid supervision afforded by the wing ward buildings, equal other claims of the segregate buildings. The extended corridor secures an opportunity to walk off excitement, while smaller houses are not adapted for such purposes. Infirmaries, at least, should be separated from main buildings, and houses could be set apart for some parole cases, working patients, epileptics, convalescents, and a well-guarded one for vicious patients.

Special institutions for insane criminals and criminal insane are absolutely necessary. The inoffensive patients are harmed by their presence.

The general opinion of alienists is against placing the so-called incurables in separate institutions by themselves. This plan increases the expense of other places by depriving them of many working patients, with the consequent necessity to employ more attendants. The bare fact of being pronounced an incurable would destroy hope in many who appreciate its significance, and who might otherwise recover, and cases of this kind might often be placed there because of the difficulty of correctly deciding whether they were hopeless or not. Under the New York state care act of 1890, asylums for "incurable" cases were discontinued as pernicious, but in 1895 Illinois erected such an institution.

The boarding-out system of Scotland has no reference to medical care and study with regard to possible cure, but a somewhat similar plan known as the "Gheel method," presided over by Dr. Peeters from a central hospital building, has succeeded better. But national peculiarities are to be reckoned, for boarding out the insane among the country people might answer in Belgium, but not in America with its different conditions.

Small asylums or hospitals for the insane are, other things being equal, humane, while large ones are iniquitous. Among other drawbacks of the overgrown institution are the unavoidable waste of materials and energies, the impossibility of proper discipline, the conflicting interests, division of authority, the greater attraction to intriguers of all sorts, the formation of contending religious and social cliques which seek to circumvent and control others. Eye service, or shirking and filchings, both great and small, with not only neglect but abuse of patients, are not only practicable, but are invited by the unhindered chances in large institutions. At the average spread of buildings for two thousand insane, a thorough inspection of the whole place would occupy the entire time of the superintendent for a year, and even then the real state of affairs could not be ascertained.

The grounds should always be ample, whatever the size of the buildings. A farm affords healthy employment, plenty of milk, and fresh vegetables, and in other ways materially lessens expense. The water supply, sewage, ventilation, and heating are often serious problems.

A site should be selected without regard to donations of speculators, and enough land obtained in the beginning to avoid purchasing more for the necessary extensions at the high prices which invariably prevail when more is needed.

Interior decorations are necessary to the cheerfulness which is an indispensable aid to health. Pictures, frescoes, birds in cages, conservatories, pianos, etc., are always found in the better institutions, and the patients often contribute to adorning the place with their handiwork.

The waxing of floors, it has always seemed to me, is not only useless, but undesirable. Accidents are likely to occur from slipping on their smooth surface; they strain the calf muscles in efforts to keep erect, and they deprive patients of walking surface if merely made for appearances; and, while the waxing affords employment to dements, they could be more usefully engaged in other things.

The temperature of wards should be regulated by observation of suitably arranged thermometers.

The dormitory system has advantages for many patients who require watching at night, particularly epileptics, whose beds

should be low to save them from the effects of falls. Irritable epileptics and those suffering from violent explosions should be placed where they cannot annoy or attack others.

No institution for the insane should contain more than three hundred patients. Lord Shaftesbury, of the English Lunacy Commission, has, with all other experienced persons, maintained that no single management is capable of doing justice to a greater number; and on the occasion of the enlargement of Hanwell, considerable acrimony was indulged in by advocates of the small institutions for the benefit of patients, and of the large ones for show and other purposes.

Supervision of more than three hundred patients by one superintendent is impossible, for trusting to subordinates invariably proves to be a mistaken policy. Unless the head of an establishment of the kind can directly inspect what is being done, he may easily be deceived by others, and for years entertain the most erroneous ideas as to the efficiency of officers.

A superintendent should have alienistic experience preceding his appointment, for he can never obtain it afterward; the innumerable duties of the position prevent advance in medical knowledge. He may become a hygienist, farmer, cook, or accountant, but unless he neglect the management he cannot excel as a physician; and if he allows others to control the business matters, he will soon come to grief through misplaced confidence, besides being snubbed by the employees, who regard the business control with more respect than they do the medical. This applies to the average American asylum conditions, particularly when such places are overgrown and unwieldy.

With the usual routine of a medical superintendent's work, consisting in examining mail, daily reports of patients and employees, special reports, factory foreman's report, answering letters, giving instructions to assistant physicians and others, interviewing patients, and attending to miscellaneous business, there is little, if any, chance for medical advancement; and the larger the place the more liable the medical head is to become merely a business head, a condition of things which one should accept and adjust himself to as unavoidable and for the best interests of the place. Politicians make this a pretext for putting in a business agent, ostensibly "to relieve the medical superintendent," but

invariably the double-headed arrangement proves to be a monstrosity, for no layman, even with honest co-operative endeavor, can possibly be so well aware of the needs of the patients and the place as the medical director. The insane are sick, and every moment demand the consideration, due to sickness, that only a physician can give. Every ounce of supplies purchased, every turn of a wheel, has reference to the care of patients, not mere boarders or cattle who require nothing but housing, feeding, and grooming. When a layman has free control of the institution he will usually ignore medical requirements, as he knows nothing of them; and the medical head is humiliated and common decency is outraged by the necessity for constant appeals to ignorance. Even when a steward is under the medical management, the latter is often defeated by intriguery of the former; what, then, is to be expected of divided authority, or, worse than all, the medical under lay supremacy. Imagine a judge being dictated to by anyone as to what legal works of reference he should purchase, particularly by a politician of the bar-room species, who, while preaching economy, pocketed the public appropriations for book purchases. Most of the lay superintendents of county asylums are purely business agents of politicians in the worst sense of the term. Neglect, abuse, and even murder of patients flow from such administration as naturally as foul water from a sewer.

It is true that the purely professional man is a poor business manager, but that is merely because of his devotion to his work. Let the same professional man fully realize that, in assuming charge of an institution for the sick, he must become a business man and that his professional knowledge is to be merely a part of intelligent training as to requirements, and the same ability that made him a good physician will convert him into the efficient medical business administrator; for special ability is nothing more than general ability. There are differences of opinion among individuals as to whether relinquishment of life-long habits is possible, and in view of this doubt superintendents should always have previous hospital experience; but there can never be any excuse, on the ground of pretended "lack of executive ability" by medical men, for the foisting of brutal, rapacious, uneducated politicians into control, however disguised as gentlemen they may be.

In a superintendency, personal traits have scope for development as in any other leadership. One will not become a martinet unless he is already such at heart; and the kindly, indifferent, or cruel traits characteristic of the individual, though previously unsuspected because of lack of opportunity for their exhibition, are shown either in the utmost devotion to the patients, in paying little attention to them, or, not only neglecting, but acting oppressively and inconsiderately to all. The less politics has to do with the administration the more scientific, humane, and economical it will be, and what is best in officials, employees, and patients will be encouraged.

Discipline is necessary, but not to the extent (practised in some institutions) of almost utter repression of opinion of subordinates. When intriguery to supplant and supersede others is made possible, through a bad appointing system, assumptions of excellency in any way are resented by immediate superiors in office as dangerous to themselves, with resort to methods of reprisal which remind one of the incident of King Frederick Wilhelm's kicking his colonel, who passed the kick down the line till a private kicked a dog, and the colonel explained to His Majesty that "we kick where we dare." It is notorious that patients in asylums come in for their full share of kicks under this disciplinary idea.

One superintendent will barely know that there is such a thing as a brass band at his disposal, another will work it hard in his own honor, posing on balconies as for apotheosis. One is wholly concerned in advancing the hospital service for the patients' sole benefit; the other wishes to secure credit for anything and everything, but, knowing how little genuine scientific work is appreciated, and that it involves sacrifice of social and political prominence, he considers that he cannot afford to drop out of sight of the people; so, by catering to popular misinformation he secures adulation, which is rarely, if ever, accorded to one who prefers what is implied in the motto, *Esse quam videri.*

The sudden alarms to which insane-asylum officials are accustomed require and develop prompt action. In illustration of the fact that female physicians may be able to act judiciously upon such occasions, it is worth mentioning that a patient was choking to death while several other physicians were looking for instruments, and Dr. Effie Lobdell, of an Illinois state hospital, thrust

her hand into the patient's throat and extracted a piece of glass two inches square which the dement had swallowed.

Physicians are apportioned to patients in United States institutions at about the rate of 1 to 150, ranging from 1 to 44 to 1 to 245.

In political institutions, the temptations to intrigue are so strong that a medical superintendent once thought best to select for his first assistant one who had a physical defect that would disable him as a rival. In the course of political changes, another superintendent displaced the defective, with the instant result of having a combination of plots to meet, which were headed by the recently elevated assistant physician.

Religious freedom should be denied to no one, but there are occasions when mistaken emotionalism of this kind interferes with both duty and humanity. A first assistant physician neglected his patients and permitted attendants to drug the insane while he conducted "camp meetings."

A pathologist should be among the medical officers, and *post mortems* be held in every case possible. Ignorant opposition must be expected, however, on all sides. The county commissioners in charge of the Chicago asylum in 1884 raised religious prejudices against *post mortems*, and were found to be selling the bodies to medical colleges at $30 each, for private profit. The rule at West Riding and all other respectable institutions throughout the world is to invariably hold autopsies unless the friends of the deceased object.

Attendants of the insane are as a class misunderstood, and are often unjustly blamed for what is most frequently due to faults in the system of management of the institution. Twenty years' familiarity with asylums and hospitals convinces me that the best regulated places of the kind have but few untrustworthy attendants, and even in the most degraded political asylum, several really worthy persons have, by some accident, managed to be present, but too frequently their lives are made wretched by the perverse element in control, and by inability to prevent the abuse of patients.

In caring for the insane, great forbearance has to be constantly used, for patients are often insulting and abusive to an exasperating degree, and there is a disposition, all too universal, to hold

them to account for what they do and say. "They are not responsible," is daily mentioned by one kind-hearted attendant to another; and in positions calling for so much self-restraint and forgiveness under extreme provocation it is really surprising how well attendants acquit themselves. But helplessness and opportunity are sufficient to tempt the brutes that low-grade politicians appoint to asylums.

At St. Anne, in Paris, the number of attendants to patients is apportioned at the rate of 3 to 50 quiet cases, 4 to 50 filthy, and 4 to 12 refractory. Excellent clinical instruction is given there, and by raising scientific interest in the patients and their diseases the very best results are obtained. Records are kept of the progress of acute cases, and everything worth noting besides, to the advantage of both patients and attendants, as well as facilitating the physician's work. At West Riding the general average of attendants to patients was 1 to 10; in the refractory wards 1 to 5; and in the suicidal 1 to 8. The salaries for male attendants ranged from £30 to £50 per year, and their uniforms were furnished.

Training schools for attendants, in vogue in Europe and introduced into New York by Dr. J. B. Andrews, of the Buffalo state asylum, greatly increase efficiency. The medical superintendent should control such school, and not allow it to be dominated by ignorant outsiders, such as reform cliques or religious parties, who may mean well enough, but unfortunately are not aware of the actual necessities in training attendants.

If political control can be minimized, and attendants secured on their merits, and promoted as they deserve for efficient service, salaries should be large enough to induce those possessing more than average ability to enter the service; but when the salary is the only inducement to ruffians who demand reward for political work, it is far better to make the salary low, for a better class of attendants, in these politically dominated places, is thus secured, from among medical students or other persons of good character who seek temporary means for study.

The Hanwell rule should be universal, that no attendant should be allowed to handle a violent patient until he can secure the help of a posse of assistants.

The great strain to which attendants are subjected when on

duty makes it but just that they should have reasonable opportunities for relaxation and recreation, and that their surroundings should be made pleasant and wholesome. They should be allowed vacations yearly, and occasional entertainments, such as dances among themselves. Naturally, abuses of such privileges occasionally occur in prolonging such social gatherings too far into the night, rather than in asking for them too often. Though matters of morality, as in every community, may be depended upon to regulate themselves, imitation of the example of superiors and a reasonable oversight of the reputation of the place, particularly with regard to requiring explanations for absences after 10, or at furthest 12 P. M., are important. The method of recording the person or persons with whom each attendant is in the habit of associating is less espionage than a fatherly duty of the superintendent, and will protect many against unjust suspicion. If the political teaching prevails that it is not wrong to steal public property, employees cannot be expected to be different from those over them; and while trustees or a business management may felicitate themselves upon their methods of "subtraction, division, and silence" as conducted in safety and secrecy, their workmen also claim political spoils, and extend the system to a practical looting of the place, sometimes carrying off everything portable. At Dunning there were "fence houses" and all-night saloons surrounding the county asylum, where blankets, clothing of patients, table ware, food, etc., were taken from attendants, in payment for liquor and gambling losses.

Great differences exist, due to personal excellence of attendants, as to the treatment patients receive. In every institution there are instances of life-long friendships springing up between the recovered insane person and those who cared for the patient; and the mere presence of a well-intentioned, considerate attendant has sufficed to calm the fury caused by harshness of others; and, on the other hand, as I testified at the State Board of Charities "investigation" November, 1885, the greatest cruelties were wantonly practised upon the insane at the county asylum by the criminals who were selected to fill the place of attendants. The report of the board is as follows:[1]

[1] Report of the Board of Public Charities, State of Illi

"We found that the institution was in effect a part of the Cook county political machine; that the power of appointment, even to subordinate positions in the institution, was virtually in the hands of the county commissioners; that the inevitable result was laxity of discipline, insubordination on the part of the employees, conflict of authority between the officers, and general bad management. A good deal of intemperance in the use of ardent spirits in and about the institution was clearly proved. The food furnished to the patients, on the whole, was of inferior quality, poorly cooked, badly served, and lacking in variety, so that an epidemic of scurvy occurred in the hospital in 1885, which lasted for several months and was the occasion of a number of deaths. The clothing and bedding were insufficient, especially in view of the fact that the building was insufficiently heated. There appeared to us to be an unnecessary amount of mechanical restraint of patients and some cases of absolute cruelty on the part of attendants were brought to our notice under oath. The cost of the institution was found, upon examination of the books of accounts and vouchers on file, to have been very largely in excess of what it should have been, particularly in view of the poor accommodations, insufficiency of service, and general absence of such comforts as should be furnished to the sick. In our report we made a number of suggestions, many of which have been accepted and adopted by the county board; but the system remains unchanged, and the improvement in the appearance of the institution and in the condition of the patients, which was observable on the occasion of a subsequent visit, can only be regarded by us as a temporary palliation of the evils to which we call attention. Until there is a radical change in the system of management there can be no permanent reform. We were embarrassed in this investigation by the impossibility of obtaining all the evidence which we desired in order to enable us to form a correct and satisfactory conclusion, and especially to fix the responsibility for existing abuses upon individuals. Enough, however, was proved to confirm our minds in the conviction that the care of the insane should not be intrusted to county authorities."

Twelve years later the asylum was even worse than ever, and murders of several patients were judicially brought to light.

If the medical superintendent were not hampered by demands of politicians in control, for positions to be filled by unworthy persons, the decent care of the insane would be greatly simplified. As an example of the selections politicians usually make, it may be mentioned that Peter Kelly, a Chicago policeman, was shot by a burglar and became insane from the neck wound inflicted. The burglar served a term in the penitentiary at Joliet, and was then appointed as an attendant at the county hospital, and was put in the same ward with, and had charge of, Kelly, his victim.

When the comfort and health of employees are regarded, proper, and even rigid, performance of duty may be exacted, and should be cheerfully contributed; but if a martinet and selfish supervision is the rule, then shirking and intriguery are inevitable. Good work cannot be secured from people who are unfairly treated. Attendants are entitled to be kindly and intelligently looked after when sick; and they should not be left in their rooms on the wards where the insane can annoy them. A change to an infirmary or to a private house will often hasten recovery.

Special attendants are allowed in some hospitals for the insane. So many complications arise from the expense and crowding that the method I found least objectionable was to have these nurses board and lodge outside the hospital, and look to the patients or their friends for compensation.

Night watches should have dark lanterns, instead of the open kind, which disturb sleeping patients, and which warn skulkers and thieves. At an institution where property was being taken away nightly, the business management defeated the medical superintendent's attempt to do away with open lanterns, leaving an unpleasant inference.

Attendants can, under their supervisors, add much to the happiness of the insane by arranging among themselves a distribution of the library according to the requirements of the different patients. I have seen books locked up on wards where they would have been appreciated, and filled bookcases allowed to remain on dement wards, when convalescents, or other patients elsewhere, capable of enjoying books, were in need of reading matter. The usual pretext is that the insane are too destructive. Consequently those who would take good care of books are deprived of them.

Among general dangers that attendants are expected to avert are the propensities some patients have for securing and making use of matches and something that can be converted into a weapon. A common trick among patients is to break off a case knife within a couple of inches of the handle, and sharpen the angular remainder till it resembles a shoemaker's blade. A leather case is then arranged to cover the instrument, and many a murderous assault has been made by one in possession of such an implement.

Some asylums adopt the plan of fining attendants who are responsible for the escape of patients, the fine going to the person who returns the escaped patient.

Carelessness about escapes, or permitting visitors to carry away letters written by patients, creates awkward complications. A New York recovered case sought damages for having been allowed to "make a fool of himself" by being permitted to mail his insane letters.

A good stimulant to the memory of attendants is to have regular examinations as to their familiarity with the rules.

A curious dispute arises in nearly every asylum over hot lunches for the night watch. The new superintendent may be puzzled to get at the occasion for the difference of opinion between the cooks and the watchmen. Some way should be provided to give the latter a hot lunch at night, in spite of the fact that the cooks claim that the late supper and early breakfast make it unnecessary, or that the watch disarranges and appropriates utensils and food materials unnecessarily. The matter is often one of greater importance than appears on its surface, and disputes of the kind may lead to the discovery of reasons why a night watch is sometimes unwelcome about store rooms or kitchens that suffer mysterious losses of their contents.

Medicines, and particularly hypnotics and stimulants, should never be intrusted to attendants to be given at their discretion. Acute or chronic poisoning is likely to occur, and in every asylum there are attendants with an overfondness for liquor.

Proper care of the patients during the daytime, particularly by giving them plenty of out-door exercise and employment that induces a healthy fatigue, secures quiet nights for the insane, and usually prevents the need of sleeping draughts.

Maintenance expense ranges between wide limits, according to the cost of labor, materials, transportation, and the honesty and economy of the management.

Sixty per cent of the English insane are maintained at 8*s.* 7½*d.* for county, and 9*s.* 7½*d.* for borough asylums, weekly, which cost includes provisions, medicines, clothing, salaries, wages, furniture, and, in some borough asylums, repairs. At Leavesdon, in 1887, the weekly cost was 7*s.* 5*d.* In Scotland the cost ranged from 5*s.* 10*d.* to 10*s.* ¾*d.*; the extreme per annum through England and Scotland being $72.80 to $125.58, with an average of 8*s.* 7½*d.* per week, or $107.64 annually.

At Alt Scherbitz, Saxony, patients are graded into three classes, $288, $144, and $57.60 per annum, according to the resources of those who maintain the patients.

The lowest *per capita* in the United States in 1894 was reported[1] by the Tuscaloosa, Alabama, asylum, $104; the average of all southern institutions being $129.23, the western $166.58, the northern $173.60, and the eastern $173.42. The exceptional *per capita* of the Bloomingdale semi-private asylum of $522.88 was erroneously included in the calculations quoted, but is omitted from the foregoing. The Bloomingdale food cost was $218.56, and Tuscaloosa $23.85 for the same year. The average of 52 asylums in the United States being $169.15, which is considerably above the cost of maintenance of English asylums. The *per capita* cost of food in 41 state asylums in 1894 was $51.43 per annum.

The New York laws of 1890 introduced simple business methods into state insane hospital management, abolished county care of the insane and institutions for the "chronic" patients. These places for "incurables" invited the greatest political abuses, through neglect of medical treatment, and the assumption that "anything was good enough for the hopeless cases."

The first year $300,000 was saved to the taxpayers through the changed system, and patients never fared so well before. The death rate was lowered, and the recovery rate raised through minimizing inducements to political interference. The *per capita* cost of maintenance for the fiscal year 1892–93 was $216.12, and

[1] Report of the Board of Public Charities, Illinois, 1895, 109.

in the succeeding year it was $184.84, a reduction of $31.28, and only one half of the dependent insane in the state had been, at that time, reached by the operation of the new law.[1]

While the average cost of American asylum maintenance was about three fourths greater than in England, the *per capita* in 1885 at the Chicago asylum reached the sum of $270.39, and in 1886 $347.51, more that three times the English and twice the American cost per head.

The Illinois *per capita* for 1885 was $174.21. The cost of clothing to each patient at the county asylum was $27.30, and $13 in state institutions, and as the former were badly clothed it was estimated that at least $20 of the fund was not used by the patient. The tobacco expense in 1885 at the county asylum, for 600 patients, was $1,471.48, and liquor $1,146. The 300 male patients received scarcely $20 of the tobacco, and about as much more would cover the cost of all the liquor given to the patients.

The succeeding year, $243,262.33 was expended for about 700 insane, raising the *per capita* to $347.51. The total county charity expenditures for 1886 was $906,478.34, at least two thirds of which must have been misdirected, on the safe assumption that the asylum *per capita* was thrice what it should have been, and in the face of the statement of the state board of charities[2] that "in the county almshouses, as we know, the insane are usually neglected and even abused."

During the three years' control of the "boodler" county organization, several members of which were sent to the penitentiary, some ten million dollars of public funds were disbursed; one saloon keeper was awarded a contract of $150,000 for covering the court-house with a "preservative," the cost of which was about $500, as clay was the main ingredient. The robbery of the insane-asylum fund was but a small portion of the political division of spoils.

The poor-house *per capita* cost was $200, and the county hospital $373.57 in 1886,[3] while in all the public charity departments

[1] State Care and State Maintenance in New York, by Dr. Carlos F. McDonald, Pres't N. Y. Com. in Lunacy, Alienist and Neurologist, July, 1896.

[2] Report for 1888, 13.

[3] Report of Board of Public Charities, Illinois, for 1886, 127.

the greatest privations were experienced by the inmates in spite of the vast sums appropriated. "Economy" was the excuse of the politicians in control, for the poverty everywhere apparent in the management, while the amount of the expenditures was industriously concealed; in the words of a county commissioner, what was done with the public funds "was nobody's business." Under the pretext that a fire was liable to occur at the county farm, the walls and fences of the city were placarded with appeals to citizens to vote for the construction of a new million dollar asylum; but events leading up to the indictment and conviction of the county commissioners defeated this projected appropriation.

The differences in the conditions on the two sides of the Atlantic have been urged in explanation of the increased expense for the keeping of insane patients in America. As it would be impossible to make satisfactory comparisons in the absence of any uniform systems, resort may be had to the respective national army expenses to ascertain their relation to public charity expenditures *per capita.*

In England the value of the bread and meat army ration is 6*d.* The pay of a private with rations, lodging, clothing, fuel, and light is £38 for infantry and £41 for cavalry, the pay proper being 1*s.* per day for infantry and 1*s.* 2*d.* for cavalry, leaving £19, 16*s.* for other than pay, approximating the cost of asylum maintenance in England, divisible into £9, 2*s.* for rations and £10, 14*s.* for other expenses.

Much of the care of the insane centers around the food provision, and estimates of general expenses can be calculated on this ration basis, and proper allowance made for the requirements of soldiers in barracks or in the field, in estimating how far their expenditures are applicable to the maintenance of insane patients in asylums.

The ordinary value assumed for the United States army ration is 18 cents in actual service. On furlough a soldier is sometimes allowed a commutation rate of 25 cents, while traveling under orders 40 cents, and in special service even $1.50; but these are extraordinary contingencies, the 18-cent value being the most common, as is the sixpence English ration value. There must necessarily be some fluctuation in the real cost of the army ration to the government, but a careful examination of prices of edibles

shows that, with honest and capable management, the ration value in either country, presuming that provisions are purchased in bulk and at the special contract prices obtainable by the army, would have an ample range between 10 and 20 cents per day, affording $36.40 as a minimum and $72.80 as a maximum annual cost per individual; the $51.43, average cost of food in 41 American asylums, being between the extremes; Tuscaloosa, Alabama, rating as low as $23.85, and Farnhurst, Delaware, as high as $90.66 annual *per capita*.

As there is no standard dietary for asylums, it is not possible to give a list of food allowances to patients, and the composition of the United States army ration can be made peculiarly useful, as a starting point at least, in estimates of what is needed for feeding aggregates of individuals, especially the large number of chronic insane who are engaged in manual labor in public institutions.

The following statement of the United States army ration is taken from the United States Army Regulations 1895, article 79, Subsistence Department:

(The quantities are the contents of 100 rations, or what is allowed one man for 100 days or 100 men one day.)

Meat components. Fresh beef 125 lbs., or mutton 125 lbs., or pork 75 lbs., or salt beef 137½ lbs., or dried fish 87½ lbs., or pickled fish 112½ lbs.

Bread components. Flour 112½ lbs., or soft bread 112½ lbs., or hard bread 100 lbs., or corn meal 125 lbs.; baking powder 4 lbs.

Vegetable components. Beans 15 lbs., or peas 15 lbs., or hominy 10 lbs., or rice 10 lbs; potatoes 100 lbs., or potatoes 70 lbs. and onions 20 lbs., or potatoes 70 lbs. and canned tomatoes 30 lbs., or 30 lbs of other fresh vegetables not canned.

Coffee and sugar components. Coffee, green, 10 lbs., or roasted coffee 8 lbs., or tea, green or black, 2 lbs.; sugar 15 lbs., or molasses 2 gallons, or cane syrup 2 gallons.

Seasoning components. Vinegar 1 gallon; salt 4 lbs.; pepper 4 oz.

Soap and candle components. Soap 4 lbs.; candles 1½ lbs.

The commissary price of the above 100 rations has frequently fallen below $10, one half of the cost usually being for meat. Ten cents per day per man would be the actual expense of main-

tenance under such circumstances, approximating the 12 cents allowance of the British army, and indicating that the cost of economical subsistence is too nearly the same in England and America to warrant any great difference in expense for maintenance of asylums, between the countries.

The comparative cost *per capita* of provisions in eleven Illinois state institutions for the year ending June 30, 1893, is officially reported[1] as follows:

Breadstuffs,	$ 6.12
Meats,	17.61
Vegetables,	3.45
Cider and vinegar,	.14
Fruits,	3.07
Tea, coffee, etc,	2.79
Butter,	4.41
Cheese,	.24
Milk,	1.68
Eggs,	.86
Syrup and molasses,	.54
Sugar,	2.11
All other provisions,	2.20
Freight,	.59
Total,	$ 44.81
Cost per month,	$ 3.73
Cost per day,	12.03
Number of persons fed,	8,677

The foregoing are the figures in the official report, with an error of $1 in the footings, which, being corrected, would make the total $45.81; the cost per month $3.81; and per day 12.7 cents *per capita.*

The following year the cost was $41.35, at 11.3 cents per day for feeding each of 8,988 persons.

The expenditure for an average of 7,520.81 patients for the year 1894, in all the Illinois institutions, was $1,406,465.63.[2]

Reducing the tabulation of cost of service, materials, etc., ac-

[1] Report for 1894, 119.
[2] Report for 1894, 93.

cording to percentages, every $100 can be approximately apportioned as follows:

Attendance,	$37.00
Food,	29.00
Repairs,	8.90
Fuel,	8.00
Clothing,	5.90
Furniture,	2.00
Farm expenses,	1.95
Light,	1.40
Medicine,	1.00
Freight and transportation	1.00
Machinery,	.90
Postage and telegraph,	.60
Laundry supplies,	.45
Water,	.45
Household expenses,	.50
Shop expenses,	.35
Books and stationery,	.24
Printing and advertising,	.20
Amusement and music,	.10
Instruments,	.05
Burial expenses,	.01
Total,	$100.00

At the English York Retreat, conducted by the Society of Friends, the patients are maintained gratuitously and at many rates, as high as £400 per annum in some cases, the average being 32 shillings per week. Accurate public expenses cannot be inferred from the cost of private asylums.

Analysis of the difference between gross and net rates, or what it costs to maintain a patient, say at $160, compared with the expense of maintaining patients, attendants, and officials counted together at about $140, would indicate that one eighth of the cost is in maintaining the employees; but in fact this cannot be evenly distributed any more than in army garrison life, where the officers and men do not share alike.

In practice the division of $160,000 among 1,000 patients and 160 employees would be something like this:

10	officials	$1,000	each	$10,000
50	attendants	300	"	15,000
100	"	150	"	15,000
10	patients	300	"	3,000
20	"	150	"	3,000
70	"	100	"	7,000
100	"	80	"	8,000
400	"	50	"	20,000
400	"	15	"	6,000
				$87,000

For food, etc.,	$87,000
" salaries,	48,000
" unexpended,	25,000
	$160,000

Under improper management, when less is given to the patient than is recorded above, a proportionate reduction from these figures of from 25 to 50 per cent will indicate who are the chief sufferers. After paying salaries and wages there would remain about $25,000, available for return to the treasury under honest management, presuming that so uneven a distribution as above is compatible with that kind of supervision.

Considering that during the reign of an old-time set of politicians in New York city it was possible to itemize a single pane of glass as costing $1,000, it would be safe to estimate that the same class of individuals could at least absorb one half of the public charity funds, and, under peculiarly advantageous circumstances, vastly more.

This does not, by any means, presuppose collusion among all the officials of an asylum. Many of them are kept in complete ignorance of financial matters, and can only see results in a general way, against which they dare not protest; nor does the preceding usually apply except to some large county asylum, the state institutions being more honestly administered, so far as most of the medical superintendents are concerned.

Estimating possibilities in state institutions, it is practicable

for $150,000 to be abstracted from $500,000 bienially appropriated for a single institution, by perquisites of $30,000 to the one in charge of the division of offices, sometimes a member of the legislature who has controlled a large number of votes for the state election. One trustee, who acts without salary and merely for the honor of the appointment, by diligently attending to hospital business can secure $50,000. A less influential trustee can save $20,000 by co-operating with his companions, while one whose vote is not needed in auditing accounts may be placated with $5,000. The storekeeper has opportunities to earn $10,000 on his $75 per month salary. An industrious business manager can net $25,000. The bookkeeper, through occasional opportunities, can add $1,500, during the same period, to his savings, and $8,500 can be secured by others in various ways from the wastage and shrinkage fields of the place. The treasurer is openly known to receive the interest on the asylum funds, though there is no legal provision for so doing. Probably $3,000 per annum is thus earned. From $2,000,000 annually appropriated by the state for the maintenance of its charitable institutions, one fourth can be abstracted without the knowledge of the state board of charities or medical superintendent, and without causing very much privation among patients; the different funds affording dissimilar chances for discounts.

The "stuffing of pay rolls" is not so likely to occur in the state hospitals, particularly when the pay list is published; but in county and city offices of all kinds great sums have been made by placing fictitious names or false rates of pay on pay rolls of employees. In 1896 a civil service investigation conducted by Attorney Luther Laflin Mills, in Chicago, made this quite apparent.

The clothing account can be profitably manipulated, in county asylums especially. At Dunning, 100 suits would be issued to a ward full of patients, and the next day the same suits were reissued to another ward. The friends of the patients are constantly complaining that the patients are not wearing clothing brought to them, and the destructiveness of a few patients is made to do duty as an excuse for the hundreds who have "lost" their clothes.

The purchase of fuel in some places gives an opportunity to charge incredible sums. A very superficial investigation would

result in astonishing disclosures in this field, unless baffled by the opposition usually raised against exposure of any kind. The purchase of furniture, and particularly building expenses, give ideal chances for profit. 5 to 50 per cent may be estimated as among the possibilities of the separate funds, and an average of 20 per cent from all would be low.

The question may properly be raised as to why English maintenance should cost from 75 to 100 per cent less than the identical service in American institutions, when the cost of food *per capita* is the same in both countries for both army and asylums. With the same number of attendants in proportion to the patients the difference in wages might account for some discrepancy—£30 to £50 in England, and $180 to $360 in America. An average of $70 higher in the United States for each attendant annually, or 35 per cent more for cost of attendance, which is estimated at 37 per cent of the total expense in America, would raise the English *per capita* to $120, with wages at the same rate on both sides of the ocean, leaving the American *per capita* of nearly $170,—to say nothing of the county instance cited, of $347.51—still too high.

The "business manager" in some institutions has claimed the right to make purchases of medicine, and very inferior stocks of drugs at high prices are pretty sure to result, of which the physician dare not complain at the risk of falling under political disfavor. Inert quinine pills containing a little quassia to impart a bitter taste have been found by the thousands in asylum dispensaries; fluid extracts as valuable as so much cold tea, but billed as Squibb's at his 20 per cent advance over usual prices; calomel which required a teaspoonful to equal ten grains; and other evidences of business enterprise in purchasing abound when the "executive ability" of a layman is placed over professional desire to have pure medicines.

At the county asylum the warden refused to buy a few dollars' worth of needed medicine on account of the expense; but the next drug account contained 48 cases of beer, 10 bbls. whisky, and 20 thousand cigars; and much wine, brandy, and fancy liquors were also covered by the item "sundry drugs." The periodical celebration of the county commissioners and their friends in the dance hall and dining room of the asylum necessi-

tated rapid and constant replenishing of that portion of the dispensary stock.

The butcher's bills for 600 insane amounted to $15,763.04 in 1884, and $18,934.11 in 1885, averaging $26 and $31 per annum for each patient; and 9 cents per lb. was charged for hog's heads in a filthy condition, some of which held iron rings in their noses. $5 *per capita* would have been ample for the meat actually given to the patients.

The bookkeeping of a large asylum may be made so elaborate as to be meaningless. I have known voluminous ledgers and auxiliary books and records to be pure shams; the requisitions supposed to be sent to the storekeeper by the attendants were not approved by supervisors or anyone else; they were written in pencil and many were unsigned. The suggestion, on one occasion, that ink should be used and the signature placed immediately below the last item was ignored, the superintendent not having political influence enough to enforce his orders. A small quantity of butterine issued has been charged up as a large quantity of butter. A pound of tea was recorded as issued daily to each hundred, the actual quantity being much less; the army ration allowing 2 lbs. per hundred. The actual meal of some of the dements consisted of 40 grains of butterine, $\frac{1}{160}$ of a pound of tea, of an inferior quality, and a small plate of corn meal mush. Patients have sometimes fought over their scanty fare,—the most helpless ones being sometimes wholly deprived of their food.

A blackboard apportionment of food to wards from the general kitchen was found to have been unchanged for two years, some of the wards having doubled their population while others were greatly reduced; but the ration division had been made during all this time on this incorrect basis. Such a possibility exists in all large institutions, but is not a probability in small ones.

When the medical superintendent disburses the funds himself, there would be no injustice in requiring the usual $10,000 bond from him; but when the trustees and business manager make all the purchases without even consulting the superintendent, and no bond is required of such persons, the practice is farcical and permits political spoliation by irresponsible persons, while the super-

intendent is under bonds for their deeds. Upon occasion this could be used to the disadvantage of an innocent medical man, when political ends were to be served.

These trustees are ostensibly selected for their business aptitude, public spirit, and philanthrophy; they receive no pay and are presumed to regard the honor of the appointment as sufficient recompense. Occasionally it happens, after a political overturn, that prominent political workers, for their services in securing votes, are rewarded by such trusteeship appointments; and, while it is not invariably the case, it too often occurs that a four years' term as trustee enables a poverty-stricken politician to blossom out as a banker or real-estate owner, or to exhibit other evidence of wealth. Combinations are formed among them in such way as to control matters in the interests of the fewest, and the resentment of the minority rises to threats of exposure, at times, with the compromise that insures silence. A clerk at $60 a month has been known to spend his entire time at a state hospital for the insane, while acting as trustee without pay, and the loss of his clerkship was taken very philosophically.

One of the sixteen county commissioners who were subsequently indicted under what was known as the "omnibus boodle finding" neglected his small saloon in Chicago to reside at the county asylum altogether. He escaped to Canada too soon in his career to have secured much money. An Indiana asylum trustee displayed more "executive ability" than the rest by placing $100,000 of asylum funds in a carpet-sack and traveling northward without the preliminary bother and loss of time required in obtaining percentages from merchants for asylum supplies furnished. All asylum trustees are not dishonest, by any means, but the system affords sufficient opportunities to develop whatever dishonesty may be latent in them.

A state board of charities, also without pay except for its secretary, has supervision of accounts. Conceding the necessity that each member of that board attend to his private business, and the fact that occasional meetings at the state capital, and visits to the various public institutions, prove so serious a tax upon their time and energies that resignations are unavoidable, it is not possible that proper investigation of the multitudinous financial and other affairs of state charities can be made. Nor are these members

usually selected with reference to their ability to give sufficient time to the duties of the board. Perforce the main inspection of accounts is left to the secretary, who must possess not only honesty, but fortitude to withstand pressure with regard to public accounts brought to bear upon him by politicians. A secretary has considered it expedient to arrange railroad excursions for legislators and their friends, in great crowds, under pretense of inspection of public establishments. Members of the state board and superintendents of hospitals should resent such demoralizing invasions, even though threatened with curtailment of appropriations in reprisal.

There is no evidence in any one of the many biennial reports of the state board of public charities for Illinois that they had access to county records of the vast expenditures for the insane in Chicago. The county commissioners have confused and concealed such statistics as though the public had no right to inspect them. Immediately before the celebrated "boodle trial" of political conspirators, in which the county funds were shown to have been embezzled on all sides, the secretary of the board officially reported his examination of the county accounts, and stated that he had found them to be correct.

The regulation of the dietary in any asylum or hospital becomes a problem that increases in complexity with the size of the place, mainly because a responsible manager cannot personally oversee the larger institutions, and when matters are intrusted to subordinates, and it cannot be known whether they are capable or not, or what forces are at work to prevent the honest discharge of duty, wrongs of great magnitude will grow, increase in number, and exist for years, without the knowledge of the superintendent. One of the commonest abuses is a settled tendency to discrimination, not only in favor of officials and some employees, as to dietary, but certain patients will be favored and large numbers may be actually starved. The disposition to luxuriate at the cost of suffering to others is not peculiar to insane asylums, for it may be observed in the world at large; but the helplessness of insanity tempts subordinates to neglect them, and higher officials readily form the habit of salving their consciences with the knowledge that they have given orders that there shall be no discrimination.

Some patients need special diet, and when once it is ordered

for them, the attendant or other authority is not vigilant to see that it is discontinued when the need for it has ceased. Political or social influences are often brought to bear upon those in control to give better than the usual food to certain patients. Attendants also, while temporarily sick, secure special diets, and these, again, are often continued because no one orders their discontinuance. Jealousies naturally follow, which, when there is influence enough, are appeased by favoritism of cooks and supervisors, until there has sprung up a self-elected caste throughout the place, which receives the best of everything, and the uninfluential must subsist as best they may.

Special cuts of meat are supposed to go to the infirmary for the sick, but the asylum butcher has his friends, who, as well as the officials, must be provided for, after which the attendants, who cannot or dare not object, and the patients, receive the remainder.

A business manager of an asylum reduced the diet of employees so as to bring the superintendent into disfavor by claiming that it was done by order of the latter. Then, when it was announced that there should be no discrimination in the employees' diet, the cooks, in revenge, raised the food of attendants to the special diet grade, pretending to so interpret the instructions, and the butcher issued only choice cuts, and allowed the lower grade of meat to accumulate and spoil, thus entailing expense and waste in ways familiar to those who have seen the workings of political places. In attempting to reduce the food of attendants to a just and sufficient standard, the opposition of influential politicians was secured in favor of special individuals, with the inevitable discontent and insolence of the less favored. The waste and extravagance of large institutions are controlled anywhere only through most rigid supervision; and under reckless, irresponsible political management these leakages are appalling.

Too much meat is bought for American asylums. When patients are not worked out of doors, less meat than is reported to be used would be better for them; and by substituting a great variety of cereals and vegetables, even those accustomed to eating too much meat could be brought to live on less, without discomfort and with improved health. An institution with 2,500 population saved $4,000 in one quarter by substituting milk for beef

to a reasonable degree. A pint or more of milk to the person would be accepted in lieu of some meat by many patients and employees. Eggs instead of beef at breakfast have made a reduction of expense of $26 per day, at the same hospital, and the occasional change was appreciated.

Economizing in any direction could, of course, be carried too far, but beef, being the heaviest item of food expense, could be reduced with but little proportionate increase of expense for other foods. The fluctuation in the price of meat sometimes enables those who purchase government supplies to make more profit. Dishonest army agents who have been found guilty of collusion with purveyors in such matters have been shot as traitors in time of war. Whatever deprives a government of its means of protection, whether in the way of munitions or money, is worth preventing. The public may eventually outgrow the idea that robbery of any governmental department is a justifiable party measure.

To cover a deficit of $8,000 a set of outgoing trustees sold $2,000 worth of hogs, and killed 92 milch cows, which, being turned in as beef, helped to conceal most of the shortage. The inferiority of cows for beef, and the consequent loss of milk to the institution, was not to be weighed against the necessity of hiding the fact that money had been misappropriated. The farm account books also conveniently disappeared, but, as in thousands of similar instances of the kind, it was merely a political event to be passed over. The former business manager of the hospital, however, was in dread of exposure, and, to get dangerous witnesses out of the way, circulated false reports to induce the employees to resign. Failing in this he instigated incessant annoyances for the new management, until, alighting upon some knavery of his business successor, threats of exposure gave rise to a combination between the old and new business managers against the superintendent, who was rash enough to oppose robbery of the asylum funds, with the customary result. What Macauley mentions as "inventive stupidity" runs riot in politically dominated places; cliques, conspiracies, entrapments, subterfuges, pretexts, and pretenses of all sorts, make an atmosphere of suspicion, distrust, hatred, and disgust, well known to asylum officials. Plans to place some person or set of persons in a false light, to blackmail

a way into some secret association of individuals who have a temporary monopoly of plunder, or to circumvent one who opposes the stealing of public funds, engage much of the time of many in some politically managed asylums. At the Cook county asylum, intriguery of this sort, with indefatigable industry to keep in favor with the county commissioners, who make all appointments, left little, if any, time for attention to the patients; and during election periods the asylum was allowed to care for itself as best it might, to enable the entire force to electioneer, intimidate voters, or gather at the saloons and gambling dens of the commissioners for instruction and approbation.

In a detached building about a hundred of the most dangerous lunatics of an asylum were gathered, their homicidal and other criminal dispositions compelling extra vigilance in their management. An adroitly arranged plot was discovered, none too soon, whereby all these insane persons were to have been turned loose upon the country at one time, in such a way as to make it appear that the superintendent was solely to blame.

The demoralization flowing from this state of affairs is beyond the comprehension of the average citizen. Aside from what the patients would undergo, directly and indirectly, the following incidents may be cited as a very few of the characteristic happenings.

One warden made it a rule of his diplomacy to have every newly appointed official entrapped in some way, often by compromising him in some folly with witnesses in hiding. The offense was not mentioned, but placed the offender in the power of the warden. Letters of the medical superintendent, or of physicians who refused to enter spoils combinations, were intercepted, and even their waste-paper baskets were ransacked for information. So notorious were such matters that private and important mail was safe from interference only by roundabout precautions, such as having it sent to another address, or to a distant city whence it could be brought by messengers. Even postoffice clerks have been induced to serve the conspirators in various ways, merely by working upon their political animosities.

Under civil service principles carried to a quixotic extreme a new superintendent retained every one of the former employees, but the old management, through many years' familiarity with the persons and environment, enlisted numbers of these retained

employees and others into harassing bands of plotters. Even the superintendent's private secretary, a man of education, mistakenly presumed to be above intriguing, upon a convivial occasion gloried in the confusion he had wrought for the new management by suppressing letters, falsifying accounts, making premeditated blunders, and revealing everything of consequence to his former employer, who had much to conceal, and who dreaded possible discoveries of such matters by his successor. The main animus in these plots was the expectation that the old political party would return to power.

The newly appointed trustees of an immense hospital for the insane proved themselves to be persons of small intelligence. One of them misspelled and capitalized nearly every other word in writing; another had a limited vocabulary, but an unlimited stock of subterfuges such as convicts cultivate. Neither of these was in sympathy with the superintendent's civil service and spoils-antagonism ideas, and they persistently opposed every endeavor to remedy old abuses, or to bring to light the mismanagement and misappropriations of the place.

A member of the legislature secured the privilege of making all the appointments in a large public institution. The following extracts are from a letter written by the medical superintendent with regard to the obstacles the business manager was interposing, and concerning the recommendation of an ignorant and brutal person to a responsible position as a reward for political services, and his future availability in business combinations:

"We must consider several important bearings that certain necessary projected changes may have; primarily, with reference to the welfare of the patients; secondarily, with regard to this being a civil service institution; and thirdly, the necessity of our escaping the imputation of outsiders that we are forming a clique. We all desire nothing but the most absolute honesty here, and will work together to secure it, but you can readily see how, if our personal friends only are placed in the responsible positions, where conspiracies would be possible, we will inevitably get the credit of stealing, whether we deserve it or not, as under all the existing rotten political conditions over the country, the opportunities for boodleism are just as good here as elsewhere. If it lies in my power, I am not only going to close down upon all

possible chances of anyone, even myself, prostituting this institution to political or thievish ends, which too often amount to the same thing, but will avoid the appearance of evil in this direction by instituting check systems, exactly as a large manufactory or extensive mercantile establishment finds it necessary to do, but if I find opposition from any quarter whatsoever, opposition that I cannot ride down or overthrow, I shall cheerfully step out and allow somebody else to undertake the task. I expect to stay here only as long as I can do decent work; the instant I am frustrated in that endeavor I shall go. It has been the history of American institutions of this kind, during past political administrations, that with the overthrow of even a faction of some party, the former set of thieves merely gave place to a new set. We will not have that repeated here.

"There are many things that we cannot do; we cannot root out the desire to effect combinations; but we can prevent them very largely by setting an example, and clearing our skirts of the accusation that we have instituted one ourselves.

"With regard to the business matters of the hospital, I am anxious that they should be placed in safe hands, under supervision that will be above reproach, so that I may be enabled to give very little thought to them, and address myself to the proper work of the hospital, the care of the insane, and believe that I can build up an extraordinarily creditable reputation in that line for this place; but first and foremost, intriguing must be barred out, and I must be allowed to work in peace, without feeling that I have conspirators, sneaks, and other hindrances around me, distracting my attention from legitimate work.

"It is difficult for a layman who has charge of the business matters in the hospital to work in harmony with physicians, because he does not comprehend the necessities, and it is not only degrading for physicians to be continually explaining to such persons what they mean by certain measures, but it prevents the work of the hospital from being carried on at all; the place becomes merely a boarding house, without regard to the treatment of the people therein.

"Allow me to ask you, candidly, what could, should, and would be said, were it known that you had not only been instrumental in appointing the superintendent, but had selected the business

manager, also the storekeeper and head bookkeeper. People would laugh to scorn the idea of such a combination, with its gigantic possibilities, not being a corrupt one. While it would be pleasant for us, as gentlemen and friends, to work harmoniously with those whom we know and respect, I know too much about insane-asylum management to feel willing to trust to the possibilities of the arrangement mentioned above, to say nothing of the probabilities."

All appointments and discharges at the county asylum of Chicago were for political reasons solely, and had no reference to capacity or faithfulness. Even when civil-service rules were supposed to be enforced by law, the president of the board of county commissioners boasted that he was superior to such restrictions, and appointed and discharged whom he pleased. The physicians annoyed the politicians with their requests for better treatment of the county patients until, as a quietus, the warden was given the power to employ and discharge doctors, who were thenceforth to have no voice in the affairs of the place. The riotous banquets and dances of the politicians harmed the patients by disturbing and frightening them, when efforts should have been made to secure quiet and sleep for them. The food was badly cooked, "coddled," as one testified before the state investigating committee. Scurvy and vermin abounded, and Dr. Kollar swore to having found maggots in the festering wounds and ulcers of the county patients. The milk was adulterated and sour, and rapidly killed off feeble patients to whom it was given. What was known as the "dope bottle" was upon every ward of the county asylum, and could be freely used by attendants to quiet patients, some of whom formed narcotic habits and were bribed by the promises of the mixture, the composition of which was largely chloral and laudanum, and so unskilfully prepared that, in the words of one of the attendants, "the one who got the top dose was not affected, but the last dose would be enough to kill."

The death rate at badly managed political asylums is usually enormous, but the "cooking" of statistics defeats investigation into the actual figures. The pathologist of the county asylum of Chicago upon assuming charge found that 50 more patients were reported than were present, 13 names were duplicated, 1 was triplicated, 10 present were omitted, and a death was not

recorded; the records were otherwise incomplete, and for publishing such facts in a medical journal[1] two county commissioners threatened the pathologist with expulsion.

Some county asylums were reported by the state board to be as crowded as an immigrant ship. Attendants were afraid of each other's influence, and defied the supervisor. Decent employees were discouraged, and, regardless of rank, the man or woman with most political influence ruled all the others. These matters are referred to in the regularly published biennial reports of the state board of charities, without effecting the slightest improvement.

Officials of some insane hospitals have built themselves houses from materials and labor paid for by the state for hospital extension and repairs. A characteristic incident of supply purchase for the county asylum was the case of a commissioner who had three pianos for the asylum charged as two, and sent the third to his own house. Duplicate carload certificates to the amount of $8,000 were paid to one commissioner, and the discovery of the "error" was made use of by another commissioner to induce silence in regard to some of his own financiering.

Nepotism is the least of asylum abuse, though it occasionally creates a close corporation where the head of an institution has some dozen or more relatives in responsible places. This is preferable to having positions filled at the dictation of outside politicians, and insures, to some degree, fuller scope for the peculiarities, good or bad, of the management.

A physician seeking an appointment to insane-asylum service asked a veteran alienist what steps were necessary, and was advised in all seriousness to make the acquaintance of his nearest saloon keeper. The number of gamblers and liquor sellers who hold offices of all kinds in connection with public charity disbursements indicates the influences at work in American politics. When surprise is expressed that such selections should be made, it is claimed that such persons are as honest, capable, and deserving as merchants and board of trade dealers, many of whom evade taxpaying and seek nefariously profitable combinations with politicians to furnish supplies to asylums, hospitals, and poor-

[1] Chicago Medical Journal and Examiner, Nov., 1883.

houses. The fact remains, however, that there is nothing in the occupations of the liquor dealer and gambler that specially fits them for caring for the public insane and their funds, beyond the mere superior ability to control appointments afforded by the faultiness of the primary election laws, which legislators would speedily remedy were it not that their own places would be jeopardized by such changes. Asylum management by such classes is merely the legitimate outcome of the general spoils system, the helplessness of the sick and insane affording the best opportunities for brutality and rapacity. The privations, sufferings, and frequent murders of insane patients, are strictly logical outcomes of the pernicious system which fills our legislatures, state, county, and city offices with gamblers, assignation-house keepers, and liquor dealers, who openly congratulate one another upon success in prostituting public and private interests. Such things are familiar to citizens who have the power to make reformations, but who do not intelligently combine to do so.

The official published reports of the state board of charities for Illinois are filled with accounts of the insane in nearly every county who are treated more as animals than as men and women, neglected, abused, chained, locked up in nakedness and filth, without medical or personal attendance, packed in rooms too small for their numbers. "A female insane pauper who put out her eyes occupies a large wooden box filled with straw, in company with another blind insane woman. They are both filthy in their habits, and neither of them wears any clothing." Poor ventilation and foul odors, no separation of the sexes, insufficient food, and many other such matters, are officially mentioned in these reports to the governor and legislature. The 1894 report contains similar details.

The charges sustained in the 1886 investigation of the Cook county asylum were:

"I. Cruelly insufficient provision for the insane in the county asylum, in all respects, when more than ample funds are alleged to have been used by the management of said asylum for the care of the insane. II. Abuse of said insane by said management, such abuse being direct and indirect, by personal violence and neglect."

Subsequent to this report to the governor, a county-court in-

vestigation on the petition of Julia Willard, May 13, 1889, was held, in which witnesses detailed murders and abuse of patients, their starvation, and the brutal nature of the management. Patients were made to work for the profit of attendants, their clothing was stolen and sold to saloon keepers; fighting, rioting, feasting, and drunkenness of politicians were narrated, with no apparent difference in the conditions since the state-board report of 1886, except in enlarged opportunities for brutality, or the report of 1878, in which (page 224) are mentioned "21 cells 7 × 8 feet, kept barely above freezing, with two beds in some, and abounding in lice." "The poor-house is a disgrace" (page 225). "The advisory board has no powers. The medical superintendent can suggest to the warden. Party politics, trading votes, and speculating," constitute the chief employment of employees (page 228). "Neglect and ill treatment" (page 229).

After the 1889 investigation it was considered safer for the politicians to give no further opportunities to bring matters to light; so a lay warden hires the doctors and keeps them under sufficient control to prevent complaints getting to the public. A partisan newspaper roundly abused the judge of the county court for holding the investigation.

The erroneous after-impression of some insane who have recovered must be considered in hearing their testimony of abuse; they tell of chokings, being forced to hard work, of being whipped, etc., when there may have been little, if any, justification for their accusations. It is often impossible to get at the truth, between statements of the insane as to abuse, and the denials of attendants. The insane sometimes take advantage of the fact that the attendants are suspected, and the latter rely upon the known untrustworthiness of most insane.

As sane boarders have been known to untruthfully complain of the insufficiency or the quality of food, so patients in asylums have also made groundless charges, and thus it is made difficult to ascertain whether patients really have or have not been properly fed. The dements who cannot complain at all are most likely to be the ones underfed, and nothing but actual observation will furnish satisfactory testimony on this point, and unanticipated inspections are more likely to succeed than when it is known that an official is making the rounds. A food inspector

was appointed to remedy this defect in asylum systems, and later it was discovered that he shared in the profits of underfeeding the patients, and that he secured the discharge of anyone who gave information of such matters to the superintendent.

The mere appearance of a bruise need not be evidence of an injury, for extravasations of blood may take place beneath the skin or mucosæ, or on the surface of internal viscera, from purely physiological causes, closely resembling the results of violence, and easily mistaken therefor. Scurvy and the trophic troubles of the insane, such as bullæ, wheals, gangrene, and sloughs, assume the appearance of injuries. The insane in some instances cover themselves with self-inflicted bruises, and have been known to break their own bones in their violence. Proper means should be taken to prevent this, but it is not always possible to do so, and the full benefit of doubt on this score should be afforded an accused person.

The most frequent method of torturing patients is by twisting their arms and wrists, hair pulling, slapping, blows, and kicks, and placing them in strait-jackets for trifling causes. Ribs may be broken by the patient being knelt upon, though paretic dements and aged persons often have very fragile bones, which may readily be broken by comparatively slight accidents. Patients also fight among themselves, and these things are to be taken into account in investigating charges of abuse. The face is not often struck, as the blows are apt to show. "Strike clothed parts," is the advice of the brutal attendant. It was testified that the Turkish bath was most used by politicians at the Cook county asylum to sober up from sprees; when patients were bathed there were complaints that the heat and rubbing were severe. Probably no attendant has deliberately scalded a patient in a bath, but there are numerous instances of death from scalding through the neglect of attendants. It is a common thing to find that the one to blame has more political influence than his associates, and he will rely upon this to shield him from the results of his negligence and arrogance, even to the extent of resenting reproof from physicians, and informing them that they do not dare to discharge him. An asylum warden discharged an obnoxious female who was promptly returned by a commissioner; but politicians use similarly unscrupulous methods in their combats; and the warden

soon entrapped the woman into disgrace and enlisted another commissioner to demand her dismissal. Plottings of that sort, bickerings, and rows, with occasional pistol shooting, were so common that nearly the entire time of decent officials and attendants was occupied in keeping out of rows.

Neglect of the food of patients, even to allowing them to starve, and inattention to their clothing, medicine, or natural wants, such as water to drink or proper exercise,—are among the many crimes of omission possible in asylums.

In 1895, as a sample, two attendants were on trial in Chicago for kicking a patient to death. An investigation was made by the commissioners, who duly exonerated themselves and, by publishing hundreds of columns of tedious and irrelevant vaporings, managed to confuse everyone and allay curiosity by tiring out the public.

A favorite resource of politicians, when attacked for malfeasance or inhuman violation of trust, is diverting public attention from themselves by personal onslaughts made upon accusers. False charges have been brought against innocent persons, often as a counterfoil to accusations against politicians. If the murder of a patient or some other outrage caused the physicians to press the guilty party too closely, the political method was adopted of inculpating the physician, or, by heaping abuse upon him, of diverting attention from the main inquiry and shifting the blame. The superintendent would be accused of not having visited all his patients, when with other duties it was impossible to have done so; and the most outrageous fabrications would be concocted, whether based upon a small amount of truth or groundless, to damage the reputation of anyone who dared to assail the combination. Anyone who ever attempted to show up the horrors of political management of asylums has been derided, abused, and degraded, in some or many ways, by powerful and wealthy politicians and their organizations of office holders and newspapers, until, under existing circumstances, it is not to be wondered at that the would-be reformer was misunderstood by the public. An honest county commissioner named Hemelgarn was so badgered by other members of the board that his genuine efforts for reform were defeated and his life made almost unendurable.

The remark of the secretary of public charities[1] that "the absence of scandal is the best evidence that no ground exists for it," was made at a time when matters were as bad at all the county asylums as they were shown to be by subsequent exposures. Such quietude is usually the best indication that conspirators are in harmony, and that no one dares to reveal the "secrets of the prison house."

A zealous effort of a few persons was made to secure an investigation of the Cook county asylum in 1884, and the co-operation of medical and other societies was secured. To defeat the conjoint call for the state investigation the commissioners transferred $800 of county money paid to one college dispensary annually, to another college dispensary as a reward for the undertaking of a member of the faculty of the latter college to block the investigation. The secretary of a citizens' association permitted papers concerning asylum abuses confided to him to be taken to political headquarters for examination, and the private secretary of an editor who advocated the investigation was discovered to be in league with the politicians. Two years later the state board met in response to numerous appeals and through instructions from the governor. Its attitude was as offensive as possible to the accusers. The county commissioners had all the machinery of the county at their disposal for defense, while those who brought the charges were forced to secure their own witnesses. The president of the board and the county attorney impeded the investigation in every way possible, by insulting witnesses, interrupting them, and placing them at every disadvantage, and diverting the proceedings into personalities; but soon the testimony began to accumulate at such an unexpected rate, and exposures of persons in high places were so imminent, that the board adjourned in fright, though forced to sustain the charges against the county-asylum management in a report that was at the time of its issue but a *fulmen brutum*, for the commissioners were well on their way to the penitentiary.[2]

An official investigation July 20, 1891, discovered eighteen

[1] Report for 1882, 47.

[2] Special Report of an Investigation of the Management of the Cook County Hospital for the Insane, by the State Board of Public Charities. Presented to the Governor Jan. 28, 1886.

insane persons at the city prison called "The Bridewell," serving out sentences of from sixty days to five years. Three were cases of epileptic insanity, two were senile dements nearly seventy years of age, one was a traumatic case with a large depression in the skull, another was a paretic dement, and several were melancholiacs. Future humane advance in official psychiatry will transfer many thousands of the insane who are in penitentiaries and other prisons to more suitable places. If the rigorous discipline common in penal institutions is used in the control of these Bridewell irresponsibles, it is probable that much unmerited abuse can be saved such insane persons by recognizing their mental condition. The assistance of alienists should be secured by the governments in such inspections.

Nothing, seemingly, could be further apart than discussions of gambling and the care of the insane, but amazing incongruities occur in public offices. The successful manager of politics, "the boss of the machine" in a great city, is often the head of a large gambling resort with a saloon and other appendages, affording rendezvous for his lieutenants. These "bosses" are good organizers, and exert as complete control over primaries, nominations, elections, and offices as though they actually owned the state and its revenues. Adepts in manipulating election machinery, and playing upon the passions, ignorances, and prejudices of the populace, they defy attempts at overthrow, and continue to divide municipal and other governmental funds and places among themselves. Opposition is crushed in every way, by corruption or discomfiture of anyone rash enough to attempt reform in a practical way, even to the destruction of individuals. Windy addresses upon "reform" do not disturb them in the least; they can make such demonstrations themselves, and in the name of "reform" increase their power for evil. It is when there is actual interference with their robberies, sometimes by criticism of their care of the sick, insane, and paupers, whose funds they control, that the hand of the "gang" falls heaviest, and partisan newspapers, directly through editors, or indirectly through reporters, are leagued by pecuniary interests in misrepresenting the motives or character of opponents of "gang" methods; and the influence of these "public educators," the newspapers, is such that it is a common thing for a well-meaning though quixotic

citizen to be placed in a false light and to be permanently misunderstood by the public. The Carlylean populace seldom sees through the hole in the political grindstone, notwithstanding the recognized untrustworthiness of political representations. Exposures are met with mud slinging, and the would-be reformer is assailed at his vulnerable point until his influence is annulled.

The propensity of wolves to feast upon their wounded enables the pursued to escape. Nor is there hesitation over a mere matter of assassinating too troublesome an enemy. Political murders have been numerous and successfully concealed; where there is risk of discovery of the murder, the assailed is made to appear to be in the wrong so as to alienate public sympathy. For instance, a rash young man openly announced his intention of testifying in court to an election fraud; he was killed by a stranger who accused him of wronging a female of whom he had never heard. A physician who had fallen under the political ban for exposing the wretchedness of the county asylum was several times the intended victim of criminals who had been employed to dispose of him. Partisan newspapers make merciless attacks, and depend upon their fabrications being accepted as readily as the advertisements of quacks which fill their offices with patients and their coffers with wealth.

Growth of intelligence will remedy many such things, but the proportion of unintelligence will remain large enough to furnish fortunes for demagogues and charlatans, for some time to come.

The pathologist of the Cook county insane asylum was offered the superintendency of the place, but refused it, with the incautious message that he did not propose to become the agent of murderers and thieves. He published[1] the following "Appeal to Physicians:"

"A political ring has held possession of the county insane asylum for many years, and has been guilty of numberless outrages against the patients. A horrible state of things has been permitted to exist there. Through the quarrels of the members of the gang among themselves, a reform party of physicians has partial possession there now; but the ring has sworn to oust them and renew the outrages against law, humanity, and common de-

[1] On the third page, first column of the Chicago Inter Ocean, Nov. 4, 1884, over his own signature.

cency which have been committed there in the past. As a physician, and not as a partisan, I advise all respectable men to be sure that the county commissioners for whom they vote owe no allegiance to gamblers and thieves."

He was shot at that night, and for years attempts were made to destroy him.

The gambling infatuation as a psychological study, and as a means of the criminal classes to extend their power to the threshold of general government control, is worth the investigation of anthropologists and political economists. In the earliest Hindoo writings there are references to the blacksmith gambling away his hammer and stone anvil. The "casting of lots," the use of the astragalus or tarsal bone of the foot originating the game of dice, the impossibility of tracing the origin of playing cards, the universality of games of chance, the existence of such places as Monaco,— are among numerous evidences of the willingness of multitudes in all ages to make possible gains by risking what they have, indifferent to the sufferings of the loser. "He would have taken my money as readily as I took his," is the prompt justification, and the professional gambler excuses his frauds with, "Had I not taken the fool's money, another gambler would have done so."

Thomas Candy [1] describes his infatuation with gambling as having begun when he was thirty-six years old, up to which time he had never made a venture of the sort. Once, when despondent over heavy business losses, he wandered into a gambling house, and sank $8,000 of what remained of his fortune, and subsequently dispossessed himself of all he had, sometimes at the rate of $250 per day, and his entire gains for a year did not aggregate $50. He remarked that the "bucket shop" patron and other person addicted to gambling are "as much under some sinister and unseen influence as is the opium and cocaine fiend." In vain he reasoned with himself, and the pleadings of his friends and relatives availed nothing. He mortgaged his house for $1,000 and donated it to a notorious "clock bucket shop." He was adjudged insane, and remained three months at a private insane asylum. He had no desire for any other species of gambling than that of

[1] Chicago Times-Herald, April 19, 1896.

the "clock game." An irresistible impulse forced him there, in spite of his knowledge that he would lose his money. He finally started an agitation against this particular method of swindling, in the hope that the professional gamblers would keep him out of their places.

The clock gambling scheme was one of such transparent robbery that victims would warn one another, and even employees of the establishment warned him of the impossibility of winning, as the commissions would absorb everything in the end.

A roulette dealer stated that a "fiend," as a certain kind of victim is called, could be recognized by his nervous haste to dash his money on the table, spread it out, haphazard, over the cards, and rush away, relieved in mind, when he had lost everything.

A small percentage of gambling-house frequenters are insane; among these may be found imbeciles, paranoiacs, and other degenerates; probably moral imbecility furnishes a large percentage of the remorseless whippers-in or "cappers," and others of the lower ranks of professional gambling. The preposterous superstitions that characterize all gamblers, whether pluckers or plucked, indicate the low grade of intelligence and education among them. In the early stages of mania or paretic dementia, gambling may form one among many of the means resorted to by such patients of throwing their money away and venting excitement. The alcoholic cases are rapidly deprived of their means, and temperance is so necessary to the professional steadiness of hand and nerves that temperance thus actually assists viciousness. The "fiends" are worth studying as probable degenerates, with obsessions allied to other irresistible impulses; but the multitudes thronging gambling resorts are of all social ranks, of the average illogical and superficial people. Symmetrical breadth of intellect would drive its possessor from such an environment; the cunning and ability to plot, even on a large scale, occasionally exhibited by the financially and politically successful gambler, is merely a development of the pickpocket and sneak-thief intelligence. Workingmen and small clerks are the most common prey of gamblers, and, there being no apparent limit to the numbers who throng their dens, gamblers have a saying that "a sucker is born every second." After witnessing the abundance of gullibility the most natural conclusion of the gambler is that mankind pre-

fers to be imposed upon, and, by an extension of his methods to the management of election machinery, he finds fresh encouragement for his doctrines and practices. The municipal control secured affords police protection of their industries, and, finally, corruption extends beyond the city, county, and state governments, until it threatens national existence.

The majority of honest, toiling citizens have never investigated the processes of nominating and electing persons to office, beyond obtaining a printed ticket somewhere, and voting for candidates of whom they know next to nothing. The preliminary work of selecting candidates is associated, in the respectable popular estimation, with bar-room fights, drunken orgies, and brutal violence. The society of those engaged in such patriotic work is to be shunned; but with the inconsistency of the average well-meaning voter he expects patriotism and principle to be somehow introduced into the contest, and, knowing the need of so doing, professional politicians successfully cater to such popular ideas, though the world abounds in wrongs instituted in the name of liberty, reform, and piety. The murderess of two hundred babies was hanged in London, in 1896, after many years of money making as a "baby farmer" due to her ostentatious piety. Over her door were a statue of Christ and the words: "Suffer little children to come unto Me." The notorious "boodle gang" of Chicago county commissioners, many of whom were finally sent to the penitentiary, operated most securely when advertising themselves as a "reform" body. Some of them made wild speeches, which were duly published in newspapers, against robbery of the sick, insane, and pauper fund, and invariably voted in favor of bills that would accomplish such wrongs.

Campaign necessities enable a few organizers under a "boss" to meet and decide who shall be elected to the main offices, and subordinate positions are naturally filled by persons of the same or a lower stripe; and then the public is astonished at occasional announcements of some ex-convict having kicked an insane patient to death at a county asylum! Figs appear to be popularly expected from thistles.

The mental construction of most of these politicians is such that they cannot conceive of mere professional devotion and enthusiasm in humane directions. A physician claiming to work

for the good of patients in a public hospital is looked upon as a brother hypocrite and demagogue. Honesty is inconceivable except as defective intelligence. Refraining from a chance to steal is inconceivable on any other supposition than want of smartness enough to know how to do so.

As the social organism is a unit, depravity cannot exist without effect upon the entire people, and the ramifications of "boodleism" become incredible in extent. Merchants and bankers have grown rich and powerful through deals with politicians, often by dividing profits in inferior merchandise sold at high prices to asylums and other public institutions. The friends and relatives of these business men permeate every avenue of society, willing and anxious to promulgate suggestions from their wealthy patrons, a word from whom suffices to quench genuine reform measures or investigations, whether proposed in clubs or churches. Many an honest ecclesiast has been warned to "drop politics," when he ventured denunciations of public wrongs, and, failing to do so, has been dismissed, sooner or later, usually upon some other pretext. The worldly wise pulpit orator finds it convenient to avoid reference to such dangerous topics, and in fact is usually so illy informed on the subject that he would be likely to upbraid the innocent and applaud the guilty unwittingly. It has happened that a medical superintendent who tried to prevent the starvation and murder of his patients by politicians has been assailed by press and pulpit because of their failure to understand the real conditions. When honest effort is made in behalf of the patients it occasionally occurs that an ousted administration busies itself in seeking opportunities and inventing occasions for spite-work, with a view to possible restoration to power. On a change being made in a state hospital a circular letter was sent out by rival politicians, suggesting that counties fill up the hospital with incurables, so that the percentage of recoveries would be reduced and enable unfavorable comparisons to be made between the old and the new administrations.

The character of the treatment of the insane by our primitive ancestry may be inferred from fragmentary early literature, and from conditions among existing races that have preserved the ideas and customs of remote periods. No precise chronological statement could be made that would be true for all countries at

the same time, for civilization is a relative matter. In India, from ten to three centuries before Christ, the causes of insanity were recorded as due to improper food, overwork, poisons, powerful emotions, etc., deranging the "wind, bile, and phlegm." Six kinds of insanity were noted, and chastisement alternated with persuasion and gentleness in attempts at cure. Elsewhere, at the same time, possession by evil spirits was the generally accepted explanation of insanity, and the possessed were beaten to rid them of their devils, and priests were presumed to have power of exorcism. The custom of destroying the weak and defective was very prevalent. The early Romans threw their monstrosities from the Tarpeian rock. American savages often abandoned their aged, crippled, and imbecile to the wolves; and they promptly destroyed idiots and the congenitally deformed. By some uncultured nations, lunatics have been considered as entitled to special privileges out of superstitious regard for them; and, with similar inconsistency, epilepsy was said to be both a diabolical and a divine affliction; *morbus sacer*, or sacred sickness, being the term often applied to it. The epilepsy of Mohammed added to his religious influence.

Egyptian papyri indicate that drunkenness was recognized as a cause of insanity 5,000 years ago. Senile decay was also described, and evil spirits were credited with causing insanity. The Coptic descendant of the Egyptian language has words to express insanity, stupor, and imbecility. The Bible refers to Saul's madness, David's feigned dementia, and Nebuchadnezzar's demented state. Herodotus mentions the insanity of the Persian king Cambyses. Sophocles narrates the insane fury of Ajax, to which Homer had failed to refer. And Euripides describes mania and epileptic insanity. Plato suggested fines for those who did not properly provide for insane relatives, thus intimating that such patients were allowed to run at large and were abandoned, as was the case in England down to a comparatively recent period.

Babylonian inscriptions invoked the gods for aid to "sufferers from sickness of the head." Plautus describes senile dementia in a comedy, and tells of a case of madness caused by "black bile."

Hippocrates, 500 B. C., combated the popular idea of epilepsy as a divine disorder, and recognized it, as well as mania, melan-

cholia, and dementia, as due to bodily ailments. He gave hellebore for insanity. Asclepiades sought to induce sleep in the insane by gentle frictions. At the beginning of the Christian era, Celsus advocated "hunger, chains, and stripes" for madmen, though there were occasional attempts at that time to cure the insane by means of music and reading aloud to them. Cælius Aurelianus opposed violence to insane patients, and Galen gave rules for treating insanity as sickness. Plutarch describes "religious melancholia," and Horace lays down rules for determining the sort of insane who need interdiction and isolation. It was a custom among Roman ladies to have idiots and imbeciles among their servants, though occasional protests were made against the practice. Court jesters were frequently selected from among the deformed or mentally unsound, in mediæval periods.

In earlier historical times, organization for other than defensive and offensive warfare was comparatively crude, and cruelty abounded on every side. Not only were the insane victims of brutalities to a greater extent than at present, but degeneracy often ran riot among rulers, affording the "insanity of power" mentioned by W. W. Ireland[1] and Italian writers, which raged in association with epilepsy, imbecility, paranoia, and even chronic mania, in imperial families of Rome, Russia, India, and other countries, afflicting Julia, Tiberius, Caligula, Claudius, Nero, Heliogabalus, Peter the Great, Ivan the Terrible, and Mohammed Toghlak, the Sultan of India, as well as the founders of the Mohammedan and later religious sects.

Through the restraints of his environment and of his fellows, man is more accustomed to be controlled than he is fitted for the exercise of unlimited power, which favors the development of latent mental and moral imperfections. The abominable cruelties perpetrated by some of these insane rulers are equalled only by the sufferings which the insane in all countries and ages have been forced to endure. These defectives probably suffered less when merely neglected and vagabondized, from the peltings and derision of villagers, with occasional burnings at the stake as witches, than after the commonwealth began to "provide" for them.

[1] Blot upon the Brain, 84.

The earliest provision for the custody of lunatics in England was under the vagrant act of 1744, and the constable of Great Stoughton, Huntingdonshire, records a charge of 8*s.* 6*d.* "for watching and whipping a distracted woman." Shakespeare mentions, in Rosalind, "the dark house and the whip" with which madmen were punished. The idea that the sequestration of lunatics as a public necessity should be with a view to their possible cure was as unknown as the idea that drunkenness was due to a diseased state; and the superstition of the ages found in the assemblage of the insane better opportunities for practising theories of casting out devils by reducing the patient to extremities through starvation and beatings.

Willis, who had charge of the insane George III., advocated fear in the treatment of patients. This royal sufferer's legs were duly blistered, and he was dosed with Peruvian bark, after the fashion of the day; and the King complained of the severity of his attendant, who is reported to have, at times, "knocked the King down, as flat as a flounder." Public discussion of this case led to some general amelioration of the condition of the insane in England, and this was afterwards carried still further by Dr. Conolly and the compassionate Earl of Shaftesbury, but not without encountering ignorant opposition; for Conolly and Gardner Hill were denounced by the English clergy for imperiling the community by unchaining lunatics.

Reil, among others, pictured the horrors of German asylums in 1803. Before a parliamentary committee a noted physician in 1808 testified that the insane in Ireland were tied by the arm to a cart, and thus compelled to follow on foot to the asylum, however distant, and that mortification from tightness of the ligature caused one in five to lose an arm.

The communal and ecclesiastical control of the insane at Gheel, in Belgium, was hideous enough until the state took charge. Some of the appliances used in restraining and "treating" the insane were the Belgian and other cages, wicker baskets, rotary machines, suspended boxes and seats, or hanging mats, swings, hollow wheels, the crib, gags, and head frames. The douche was used as a means of punishment, and sudden plungings into "surprise baths" were in favor, at one time, to arouse depressed and discourage refractory patients. Most of them, however,

were penned up in filthy close rooms, sometimes of stone, with wet floors, freezing in winter and stifling with heat and offensive odors in summer, fed on scanty and coarse food, often sleeping naked on straw, and several in one bed. Frequently the poor creatures were devoured by rats if they survived the thirst, hunger, and pestilential diseases that carried off many of them. Added to this, there was usually brutal supervision. Sometimes convicts were employed to treat them as they would. Esquirol relates how the madmen, goaded by ill treatment, would watch for an opportunity to kill their attendants with their chains.

By very slow degrees the care of the mentally afflicted has been improved. The inertia of governments and the temporary influence of exposures, with want of general concerted action, account for much of this slowness. There was fierce opposition aroused in 1855 against the investigations in Scotland that were headed by Miss Dix, and it was by great effort that finally a royal commission was secured which occupied two years in examining into and finally reporting upon the cruelties to which the insane were subjected.

The renowned asylum of Bonifazio was opened under the auspices of the Florentine Vincenzio Chiarugi, May 19, 1788, as a distinct departure from the inhumanities of the time. Cleanliness, gentle treatment, medical care, and the fullest liberty, supplemented the universal brutalities in managing the insane. It was ten years later when the chains were struck off the patients at the French Bicêtre, through the long pleadings of Pinel. He outlined a reform which was improved upon by his successors. Esquirol in 1818 wrote to the minister of the interior: "Nude were the lunatics I saw, covered with rags, stretched on the pavement, a little straw to defend them from the damp cold. I saw them grossly fed, deprived of air to breathe, of water to slake their thirst, and of things necessary to life. I saw them committed into the hands of whippers, a prey to their brutality. I saw them in narrow, dirty, fetid receptacles, without light or air, chained in certain dens, such as wild beasts are penned in and kept secure."

Pinel was suspected by the revolutionists of having some sinister design in asking permission to unchain his lunatics, and a deputy of Robespierre wrote: "Citizen Pinel: To-morrow I

come to pay you a visit at the Bicêtre; woe to you if you lodge among your lunatics any enemy of the people." Upon inspecting the ferocious, brutalized wretches, for whom Pinel asked release from restraint, the officer remarked: "I admire your humanity, but doubt your discretion." And to this day the inexperienced are inclined to use needless restraint for the insane.

When investigations of asylums are made, which are usually prompted by the violence or neglect of an attendant resulting in the death of a patient, it often occurs that implications and recriminations open up fresh exposures and involve persons who were not originally accused. Inquiry as to the mode of appointment of all officers and employees should first be made, as it will probably afford a clue to the animus and discipline of the place. The incentives to charges and countercharges need deep probing, as well as the construction of the investigating body, its interest in the investigation, and whether it is likely to bring out the truth or to cover it up. Deposed administrations have been active in arraigning their successors for real or imaginary misdeeds, and upon rare occasions someone has instituted charges from genuine reform motives, but even these reformers are apt to be jealous of one another, as mentioned by Regis,[1] and, instead of combining their philanthropic efforts, to disparage one another. As Hack Tuke says: "There are enough evils in the world for the few reformers who appear from time to time, and there is no need of creating between them a state of hostile rivalry."

There should be patient listening to what each witness has to say, and avoidance of the digressions and personalities by which politicians seek to divert attention from their own responsibility. Browbeating and chicanery in the conduct of an official examination should arouse suspicion against the side that resorts to it. Judicial inquiries are far preferable to those of charity boards, who may have some political interest in the issue. A county commissioner or aldermanic "investigation" is simply farcical, for in most instances such bodies are directly responsible for the offenses which, with much parade and noise, they proceed to "investigate," and to conceal.

The untrustworthiness of accusations made by the insane, and

[1] Practical Manual of Mental Medicine, 25.

especially by paranoiacs, is to be considered, with the possibility of some truth being mixed up with delusions. The persistence and activity of these degenerates, manifested by their successful lobbying, have resulted in unsatisfactory laws relating to the insane,— especially as regards their commitment.

Private asylums are tempted to accept more patients than they can properly care for. The Royal Commission examination in Scotland showed that inhuman huddling of many patients in a small space was practised for the sake of gain in too many private asylums. The popular suspicion that sane persons are held in such places may, in rare instances, be justified; but such victims would be troublesome charges, and murder, or some other means of disposing of persons conspired against, would be more probable than detention. Noisy and plausible paranoiacs are mainly responsible for these stories of false imprisonment. In France the "reclamation" process is invoked, as habeas corpus is elsewhere, in behalf of persons claimed to be unjustly detained as lunatics, with about the same result, finding their stories to be unfounded, in the great majority of cases.

Concerning the popular idea that sane persons are often held as prisoners in asylums, Dr. Carlos F. Macdonald[1] says: "The writer in his official capacity has examined thousands of cases of alleged illegal detention without finding one in which the allegation was well founded. Moreover, during a period of twenty-six years of professional and official connection with the institutions for the insane in the state of New York, not a single authenticated instance of the commitment of a sane person from bad motives has come to his knowledge. And while it may be said that mistakes in the diagnosis of insanity, as in other diseases, occasionally occur, such mistakes are exceedingly rare, as shown by the hospital records, and, when made, are speedily recognized and corrected."

It has been charged, with much more probability, that political criminals have occasionally taken refuge in public asylums controlled by the "spoilsmen" of either political party. A "boodler" in Chicago had himself declared insane and conveniently regained his sanity when action against him had ceased.

[1] State Hospitals' Bulletin, New York, July, 1896.

Great hardship and injustice have been experienced by innocent persons through this popular error, which is derived from ignorantly written novels. A notorious instance involved parties in two continents. Wm. E. Curtis[1] tells of the bitter experience of a resident of British Columbia whose beautiful wife suddenly disappeared and long after was heard of as held in a London, England, insane asylum. The woman was undoubtedly insane but a female philanthropic society thought otherwise, and through systematic conspiracy destroyed the practice of the physician who had certified to her insanity. This society stirred up Parliament to pass laws concerning incarceration in private asylums, and finally, when her insanity became evident, even to ignorant observation, the "philanthropists" abandoned her, and she was again lost before her husband could secure her.

The actual, incessant, wrongs of the insane require too much investigation and knowledge to be comprehended by these hysterical Don Quixotes. Could their minds be charged with facts, instead of fancies, their energies might be profitably employed in the directions so intelligently pursued by Dorothea Lynde Dix. She was born in Worcester, Mass., in 1794, and through her personal studies and efforts she awakened the conscience of every English-speaking nation to make great improvements in the methods of caring for all dependent and unfortunate classes, especially the insane. Her work is a monument to her wisdom and zeal, while hundreds of well-meaning hysterical "reformers" have done harm to good causes, through misdirection and incapacity.

The incessant charges of brutality made against keepers of the insane require more careful inquiry into causes than has heretofore been made.

The law-abiding, peaceful, well-disposed, average citizen cannot understand how such things exist in his community; and in his quiet, respectable surroundings it is hard for him to believe that there is a vast amount of ferocity in many people with whom he does not come in contact; nor does he realize that he frequently votes for the persons who give public employment to low and cruel persons.

[1] Chicago Record, July 1, 1897.

A little reading of ancient and modern history and of adventures, with more or less foundation of fact, should convince him that a surprising amount of latent and active savagery exists in the world. A few sources of such information will be found in stories of the slave trade, the control of convicts, supervision of abandoned women and other outcasts, police contact with the flotsam and jetsam of large cities, including the tramp who is kept moving on by clubbing; of what the young woman encounters who has been bereft of family protection, even when she seeks aid from former fair-weather friends; the flogging of sailors on shipboard and their treatment on some whaling voyages; and what the fellaheen endured in the building of the temple of Karnak, the pyramids, and the ancient Egyptian canal, supplemented by narrations of the modern methods of the khedive and civilized nations in securing work from the descendants of these same people in the construction of the Suez canal. A federal grand jury in 1890 brought to light unsuspected horrors abounding in Chesapeake Bay oyster-dredging expeditions, in which murder was common and even desirable as an escape from the sufferings imposed upon great masses of workmen. These things are mentioned as a reminder that brutal natures abound, and under existing circumstances it is not remarkable that many of their possessors find their way into asylums as attendants in reward for services performed at the polls for those who appoint them. When a murder occurs at an asylum the first question should be, *Who appointed the murderer to his position?*—and full light thrown upon the character of this office-giver will be likely to disclose the responsibility for the crime.

The operation of the law of survival, wherein "the battle is to the strong, the weak go to the wall," has not only led to the neglect of the insane, the weakest and most helpless of all human creatures, on account of their filthiness, repulsiveness, and burdensomeness, but their irresponsible aggressiveness has often aroused the brutal retaliation of the none-too-patient or considerate savage who too often happens to be in charge.

The ability of the saloon-keeper and gambler to demand positions for their brutal friends should be curtailed. When we consider the fact that liquor dealing is responsible for so large a share of the world's insanity, crime, and misery generally, the presence

of saloon-keepers in such great numbers in official life does not speak well for the aggregate intelligence of voters.

An important phase of the subject is the blunted conscience of the people who accept the misappropriation of public funds as a matter of course. A large contingent of commercial men actually applaud that kind of maladministration, as business enterprise; a condition growing out of the fact that voters often supinely indicate which particular band of plunderers shall rule. Henry Ward Beecher predicted that America would pass through an era of disgrace. When, and how safely, should be the concern of every right-thinking citizen. The merchant who connives with spoilsmen to sell inferior materials at extravagant prices to public institutions may carouse with the business agent of an asylum, and both felicitate themselves on their divided gains. The thought that health, and sanity, and life have been taken from patients by depriving them of what was intended for them never seems to occur to such wrongdoers; but the asylum physician, who sees patients dying from drinking sour milk and eating rotten meat and vegetables, and for the want of a few simple remedies, or from insufficient warmth because the clothing and fuel accounts had been manipulated in the interests of politicians and tradesmen,—the physician who witnesses such things—sees clearly who is to blame for the privations, horrors, and death around him. The asylums of America are not *all* badly managed; nor is the sweeping generalization true that *all* saloon-keepers are unworthy citizens; but the present spoils system does not encourage humane care of the unfortunate. Occasionally a hospital for the insane is creditably managed in spite of the prevalent bad system, and it is possible for a saloon-keeper to be better than those usually found in his particular business.

The extent and cohesion of the spoils system is almost incredible. Its beneficiaries often surround a public hospital, and they are found in every branch of social and commercial life. The politician who has money and favors to dispense is admired, applauded, shielded, and courted by tradesmen, professional men, and laborers, who influence others to refrain from attacking their favorite. The demagogue relies upon the ignorance of the people at large of the true condition of things; and when an investigation threatens enlightenment, a formidable band volunteers to

thwart or destroy whoever instigates an exposure, and the reformer's friends reproach him for his foolhardiness.

British investigations of Canadian asylums revealed a horrible state of affairs at the Longue Pointe and Beauport asylums conducted by a Church sisterhood, and recent reports of some German ecclesiastical private asylums are shocking in their details. Almost weekly there are accounts in the daily papers of ribs broken and other evidences of harsh treatment in American asylums. Occasionally a murder is reported among many that are undiscovered, with usually an "investigation" made by the political body in control, and a final obscuration of the crime by meaningless chatter or an explanation that no one was to blame, whereupon the public has a hazy idea that the superintendent is at fault, when it is the system, the murderous, thieving political spoils system, that foists malefactors into position as attendants for the insane, in spite of the best intentions of the medical superintendent, or his vigilance in trying to keep such persons from cruelties that are natural to them.

Cruelty is the consequence, not the object, of political control in asylums. The diversion of funds and the dispositions of the criminals who make such diversions create cruelties. The crocodile that eats his own young has no notion of cruelty; he merely seeks to appease his appetite; and many who see no wrong in political peculations would not, themselves, be directly cruel to a patient; but they do not care to consider the consequences of depriving the insane of their means, or they lack intelligence to realize such results.

The increase of knowledge, which has benefited the world in general, has befriended the lunatic; and it is the advance of science which has suppressed barbarities. The introduction of scientific methods and aims into hospitals for the insane, dating from the efforts of Chiarugi, Pinel, and Tuke, brings humane incentives and good results. Assistance has been given to alienists in the rational care of the insane in proportion to the increase of intelligence in the community and the publicity of asylum affairs.

If American investigators in science were afforded the chance enjoyed in many European institutions, unhampered by dependence upon political caprice, they would make as creditable a

showing as their foreign *confrères;* but with uncertain tenure of office,—illustrated in one instance by the dismissal of all the physicians in Virginia asylums for refusal to vote for repudiation of the state debt,—and the numberless demoralizations accompanying lay supervision and non-medical supremacy, where the scientific care of the sick should be the only consideration, it is not possible for a medical position in an asylum to be other than a mere salaried place, the keeping of which requires too much anxiety to permit a proper discharge of its ostensible duties.

It follows that reforms in governmental psychiatry can come only through a demand for full publicity of asylum affairs. There should be a strict scrutiny of the accounts, and a check system adopted that would discourage dishonesty. Banks overhaul the books of their clerks, and railways multiply checks upon their agents; and with all these precautions the ordinary mercantile and manufacturing organization is occasionally robbed. Were the defective accounting system in use in state and county affairs to be allowed by business men and private corporations, failures and industrial wreckage would be universal. Civil service laws, properly enforced, would, if introduced in asylums, be directly instrumental in restoring thousands to sanity and useful lives who, under the present iniquitous system, are doomed; and further murders by politically appointed attendants, or by anyone, in such places, would be prevented.

The first lady physician appointed to an asylum in Illinois was Dr. Delia Howe, in 1883; and ten years later civil service, internes, and a visiting staff of physicians were, for the first time, introduced into an Illinois state hospital for the insane by the author of this work. If such innovations had been previously made in other states, recorded mention thereof has been unintentionally overlooked.

There are penalties visited upon those who attempt reforms,—a fact expressed by Professor Andrew D. White, the President of Cornell University, in the words: "Whoever has done anything new for his fellow men has been made to suffer for it." The genuine reformer should expect no credit beyond his own approval. Even friends will regard him as visionary, and final success sees the innovator forgotten, or merely recalled as one who had done something disagreeable at one time, the particulars of which are not remembered.

Reforms, as well as institutions, grow; and a more scientific treatment of the insane is gradually evolving in common with other advances of the world. But, for the present, we can look for no radical improvement in asylum matters in the Union until civil-service rules are firmly established therein. This can scarcely be hoped for until the primary election laws are so improved as to secure honest candidates for all public offices,—an achievement that means nothing more nor less than the destruction of the power for evil now defiantly exercised by the gambler and dramseller.

Herbert Spencer remarks: "Any system that confers the rewards for merit upon the undeserving is demoralizing and destructive of social advance," and: "Though all efforts for reform are out of proportion to the results, the reformer may take comfort in the knowledge that the little that is accomplished will endure."

APPENDIX.

SCIENTIFIC BOOKS AND TREATISES AS EVIDENCE.

I. EXACT SCIENCES.
- § 1. *General rule as to admissibility.*
- § 2. *Tables of expectancy of life.*
- § 3. *Almanacs.*

II. INEXACT SCIENCES.
- § 1. *General rule as to admissibility.*
- § 2. *Reasons for the rule.*
- § 3. *The contrary rule.*
- § 4. *Opinions founded on books.*
- § 5. *Use of, on examination.*
- § 6. *Use of, to sustain or discredit experts.*
- § 7. *Use of, on cross-examination.*
- § 8. *Use of, in argument.*

III. LAW.

IV. MISCELLANEOUS MATTERS.

I. EXACT SCIENCES.

§ 1. *General rule as to admissibility.*

The books which are admissible before a jury as primary evidence are those which relate to science deemed exact, or such as, by long use in the practical affairs of life, have come to be accepted as standard and unvarying authority in determining the action of those who use them.[1] Books of exact science in which conclusions from certain and consistent *data* are reached by processes too intricate to be elucidated by a witness, when shown to have been accepted as standard upon the particular subject under examination, are admitted in evidence for those reasons.[2] Almanacs, astronomical calculations, tables of logarithms, and the like, and tables of life expectation in matters of insurance, are among the exact sciences, which are admissible as prima facie evidence.[3] When a scientific work is concededly recognized by the profession as a standard authority, statistics of mechanical experiments and tabulations of the results thereof, contained in it, may be read

[1] Tucker v. Donald, 60 Miss. 460, 45 Am. Rep. 416.
[2] Shover v. Myrick, 4 Ind. App. 7.
[3] Tucker v. Donald, 60 Miss. 460, 45 Am. Rep. 416.

in evidence by an expert witness in support of his professional opinion, when such statistics and tabulations are generally relied upon by experts in the particular field of the mechanic arts with which such statistics and tabulations are concerned.[1]

§ 2. *Tables of expectancy of life.*

Tables showing the expectancy of life in healthy persons of different ages, printed in books of general acceptance and authority, which are acted upon by courts and insurance companies, such as the Carlisle and Northampton tables, are admissible in evidence in cases in which such evidence is applicable to establish the statements and estimates contained in them.[2] Thus, the Carlisle and Northampton tables, and other approved tables which are standard on the subject of the duration of life, are admissible in evidence in an action for damages for alleged negligence causing death, as tending to show the probable duration of life of the person injured if such injury had not happened.[3] And this is the rule though the person killed was in poor health.[4] And the American experience table, which is a standard table and has been long recognized both by statute and by courts, is admissible in evidence in such an action for that purpose.[5]

So, a witness in an action for a personal injury resulting in death may testify to the probable period of the natural life of the

[1] Western Assur. Co. v. J. H. Mohlman Co. 51 U. S. App. 577, 83 Fed. Rep. 811.

[2] Sellars v. Foster, 27 Neb. 118; Georgia R. & Bkg. Co. v. Oaks, 52 Ga. 410; Shover v. Myrick, 4 Ind. App. 7.

[3] Donaldson v. Mississippi & M. R. Co. 18 Iowa, 280, 87 Am. Dec. 391; Worden v. Humeston & S. R. Co. 76 Iowa, 310; Chase v. Burlington, C. R. & N. R. Co. 76 Iowa, 675; Denver, S. P. & P. R. Co. v. Woodward, 4 Colo. 1; Duval v. Hunt, 34 Fla. 85; Georgia R. & Bkg. Co. v. Oaks, 52 Ga. 410; Central R. Co. v. Crosby, 74 Ga. 737, 58 Am. Rep. 463; Hunn v. Michigan C. R. Co. 78 Mich. 513, 7 L. R. A. 500; Deisen v. Chicago, St. P. M. & O. R. Co. 43 Minn. 454; O'Mellia v. Kansas City, St. J. & C. B. R. Co. 115 Mo. 205; Friend v. Ingersoll, 39 Neb. 717; Sauter v. New York C. & H. R. R. Co. 6 Hun, 446; Steinbrunner v. Pittsburgh & W. R. Co. 146 Pa. 504; Gulf, C. & S. F. R. Co. v. Smith (Tex. Civ. App.) 26 S. W. 644; Gulf, C. & S. F. R. Co. v. Johnson, 10 Tex. Civ. App. 254; Galveston, H. & S. A. R. Co. v. Leonard (Tex. Civ. App.) 29 S. W. 955; McKeigue v. Janesville, 68 Wis. 50; Mulcairns v. Janesville, 67 Wis. 24.

[4] Galveston, H. & S. A. R. Co. v. Leonard (Tex. Civ. App.) 29 S. W. 955.

[5] Boettger v. Scherpe & K. Architectural Iron Co. 136 Mo. 531.

person injured by reference to a recognized American life table.[1] And a physician and surgeon who attended such person may testify as to the expectation of life of a healthy man of his age as shown by the Carlisle mortality tables.[2] And a witness may testify from tables prepared by the American Legion of Honor showing estimates of the probable duration of life, where it is not claimed that they were not approved or correct tables.[3] And an accountant may testify in such an action, in which the deceased was under covenant to pay his mother an annuity during their joint lives, after referring to the Carlisle tables, as to the average duration of life of two persons of the age of the mother and son respectively, and as to the price for which an annuity for the mother's life could be bought.[4]

It has been held, however, that the Carlisle tables are immaterial and inadmissible in evidence in an action for injuries not resulting in death;[5] and that annuity tables are not admissible in evidence, in such an action, to show the probable duration of life of the person injured, in order to show how long he is likely to endure the pain and suffering caused by the injury.[6] But the prevailing rule would seem to be that the competency of standard life expectancy tables is not confined to cases of death of persons sustaining personal injury by another's negligence, but that they are also admissible to show the probable duration of life of one suing for a personal injury, on the question of compensation for permanent injury, though death did not result,[7] such evidence

[1] Louisville, C. & L. R. Co. v. Mahoney, 7 Bush, 235.

[2] Steinbrunner v. Pittsburgh & W. R. Co. 146 Pa. 504; McCue v. Knoxville, 146 Pa. 580.

[3] San Antonio & A. P. R. Co. v. Bennett, 76 Tex. 151.

[4] Rowley v. London & N. W. R. Co. L. R. 8 Exch. 221, 42 L. J. Exch. N. S. 153.

[5] Nelson v. Chicago, R. I. & P. R. Co., 38 Iowa, 564.

[6] Chicago, B. & Q. R. Co. v. Johnson, 36 Ill. App. 564.

[7] Louisville, N. A. & C. R. Co. v. Miller, 141 Ind. 533; Richmond & D. R. Co. v. Hissong, 97 Ala. 187; Louisville & N. R. Co. v. Hurt, 101 Ala. 34; Mary Lee Coal & R. Co. v. Chambliss, 97 Ala. 171; Townsend v. Briggs (Cal.) 32 Pac. 307; Kansas P. R. R. Co. v. Lundin, 3 Colo. 94; Knapp v. Sioux City & P. R. Co. 71 Iowa, 41; Simonson v. Chicago, R. I. & P. R. Co. 49 Iowa, 87; McDonald v. Chicago & N. W. R. Co. 26 Iowa, 124, 96 Am. Dec. 114; Atchison, T. & S. F. R. Co. v. Hughes, 55 Kan. 492; Greer v. Louisville & N. R. Co. 94 Ky. 169; Lincoln v.

being admissible where the injury practically destroyed the earning capacity of the person injured;[1] or where he was incapacitated for earning what he otherwise would have received.[2] And such tables will be admitted where the evidence is conflicting as to whether the injuries sustained are permanent or not,[3] or where there was some evidence tending to show that the injuries received were of a permanent character.[4] And such tables are admissible in evidence for the purpose of showing the probable duration of life of the person injured, though he was engaged in extra hazardous and dangerous undertakings;[5] or though he was engaged in a more hazardous employment than the person with reference to whom the tables were compiled, that being merely a circumstance to be considered by the jury as tending to show that his expectancy of life was less than the tables indicated.[6] Nor will the fact that his health is shown to have been below the average, and that in fact he was not an insurable risk, affect the admissibility of such tables.[7] And such tables and the testimony of an insurance agent based upon them are admissible to show the probabilities of the duration of life, though the agent does not claim to be an expert as to the tables.[8]

The Carlisle mortality and annuity tables are not admissible, however, to show the expectancy of life of a person suing for a permanent injury, until the proper foundation has been laid by proving his age or introducing evidence from which his age may be inferred or approximated,[9] nor unless there is some evidence

Smith, 28 Neb. 762; Friend v. Ingersoll, 39 Neb. 717; Campbell v. York, 172 Pa. 205; Kraut v. Frankford & S. P. City Pass. R. Co. 160 Pa. 329; McCue v. Knoxville, 146 Pa. 580; Steinbrunner v. Pittsburgh & W. R. Co. 146 Pa. 504; Mississippi & T. R. Co. v. Ayres, 16 Lea, 725; Vicksburg & M. R. Co. v. Putnam, 118 U. S. 543, 30 L. ed. 257.

[1] Townsend v. Briggs (Cal.) 32 Pac. 307.

[2] Knapp v. Sioux City & P. R. Co. 71 Iowa, 41.

[3] Richmond & D. R. Co. v. Garner, 91 Ga. 27; Blair v. Madison County, 81 Iowa, 313.

[4] Northeastern R. Co. v. Chandler, 84 Ga. 37.

[5] Coates v. Burlington, C. R. & N. R. Co. 62 Iowa, 486.

[6] Birmingham Mineral R. Co. v. Wilmer, 97 Ala. 165.

[7] Arkansas Midland R. Co. v. Griffith, 63 Ark. 491.

[8] Central R. Co. v. Richards, 62 Ga. 306.

[9] Atlantic Consol. Street R. Co. v. Beauchamp, 93 Ga. 6.

as to the value of his services or his capacity to earn money.[1] And such tables, showing the expectancy of life of the person killed, are not admissible in an action brought by such person's father for the killing, as it would be the expectation of life of the one who would soonest die in the ordinary course of nature which should be made the basis of the award of damages.[2] Nor are the mortality tables found in the Michigan statutes admissible in evidence in an action for death from alleged negligence, where such person was but five years of age and the tables gave no expectancy of life for any age under ten years.[3] But the Carlisle tables are not rendered inadmissible for the purpose of showing the expectancy of life of the person injured by the fact that such person was an infant at the time, and that nothing could be recovered as compensation for loss of services of such person until such time as he would have arrived at his majority.[4]

So, the Northampton and other standard tables are admissible as evidence tending to show the probable duration of life of the plaintiff in an action on a contract to support her during life.[5] And resort may be had to tables used in life insurance showing the average expectancy of life, in ascertaining the damages to which a policy holder is entitled as against an insurance company for becoming insolvent and failing to keep the policy in life.[6] And standard and recognized mortality tables, and the evidence of experts as to computations based thereon, are competent, in connection with other evidence, to show the expectancy of life and the present value of a life estate or annuity, and in estimating damages to a remainderman resulting from a change of grade of a street, either before a jury or in an action in equity.[7] So, courts, having adopted the American life annuity tables as a matter of law, may determine the present value of life estates by consulting them when the person upon whose life the estate depends is of ordinary health and vigor, subject, however, to be varied on

[1] Macon, D. & S. R. Co. v. Moore, 99 Ga. 229.
[2] Illinois C. R. Co. v. Crudup, 63 Miss. 291.
[3] Rajnowski v. Detroit, B. C. & A. R. Co. 78 Mich. 681.
[4] Walters v. Chicago, R. I. & P. R. Co. 41 Iowa, 71.
[5] Schell v. Plumb, 55 N. Y. 598.
[6] People v. Security L. Ins. & Annuity Co. 78 N. Y. 114, 34 Am. Rep. 522; McDonnell v. Alabama Gold L. Ins. Co. 85 Ala. 401.
[7] Joliet v. Blower, 155 Ill. 416.

account of unusual vigor or frailty, which may either lengthen or shorten the probable duration of the life estate.[1] And Wigglesworth's tables for estimating life estates may be used by the jury in computing damages under proper instructions as to such use, in an action for a breach of covenants of seisin, where the plaintiff proves an outstanding life estate, and gives evidence as to the age and general state of health of the tenant for life and the actual value of the premises.[2] So, judicial notice of the existence and contents of the American tables of mortality may be taken in estimating the value of a wife's inchoate right of dower.[3] And the mortality tables published in the Michigan Compiled Laws are unaffected by any consideration of the person's present condition of life, but are made up by averaging lives by the actual mortality of the strong and sickly alike in calculating the probabilities of life for the purposes of computing an estate of a dowress.[4] And standard tables showing mortality rates and expectancies of human lives at certain ages and under certain conditions, as well as the present worth of annuities, etc., may be used under proper instructions with relation to annuities and estates depending upon future contingencies.[5] But the Carlisle tables, designed to ascertain the average duration of life so as to protect life insurers, are not authoritative as to the value of the husband's life interest as tenant by curtesy, where the disproportion of his interest to the whole, reckoned under such tables, is manifest.[6] So, the jury in an action under the civil damage act has the right to consult annuity tables in determining the probable duration of the joint lives of the plaintiff and her husband where the husband appears to have been a healthy man and but for the use of intoxicating liquor appeared to have the ordinary prospects of life.[7] But it has been doubted whether the Carlisle tables of mortality are admissible in an action under that act

[1] Alexander v. Bradley, 3 Bush, 667.

[2] Mills v. Catlin, 22 Vt. 98.

[3] Gordon v. Tweedy, 74 Ala. 232, 49 Am. Rep. 817. And see Wagner v. Schuyler, 1 Wend. 553.

[4] Brown v. Bronson, 35 Mich. 415.

[5] Shover v. Myrick, 4 Ind. App. 7.

[6] Shippen's Appeal, 80 Pa. 391.

[7] Hall v. Germain, 37 N. Y. S. R. 320; Roose v. Perkins, 9 Neb. 304, 31 Am. Rep. 409.

where the habits of the person to whom liquor was sold were such that he did not have the ordinary prospect of life.[1]

Courts will take judicial notice of such standard tables as the Carlisle tables read from the Encyclopædia Britannica, and they are not subject to the objection that no foundation had been laid for their introduction.[2] And the expectation of life is a matter of experience about which it is not error for the judge to instruct the jury.[3] The Encyclopædia Britannica is a familiar work of science of unquestioned authority, and is admissible in evidence to prove the Carlisle life tables within the meaning of a statutory provision making books of standard science *prima facie* evidence,[4] and may be admitted without further proof.[5] And the same rule applies to the tables of expectancy of life contained in Johnson's New Universal Encyclopædia.[6] And evidence of a witness that he is acquainted with a book, and that it is his impression that it is a standard work, is sufficient to identify it as a standard authority within such a statute.[7]

Under the general rule, however, the Carlisle and other similar tables are to be received in evidence for the purpose of showing the expectation of life upon judicial notice of their genuineness and authoritativeness, legal proof thereof not being required.[8] And a book containing tables of expectancy of life, which is not a standard work of which courts take judicial notice, and which they recognize as authority, is not admissible in evidence in the absence of proof of its correctness.[9] But the admission in evidence of a table of expectation of life containing no intrinsic evidence of authenticity is not reversible error where it was more favorable to the excepting parties than the Carlisle tables would have been.[10] And expert witnesses may testify as to results and

[1] Rafferty v. Buckman, 46 Iowa, 195.
[2] Louisville, N. A. & C. R. Co. v. Miller, 141 Ind. 533.
[3] Johnson v. Hudson River R. Co. 6 Duer, 633.
[4] Worden v. Humeston & S. R. Co. 76 Iowa, 310.
[5] Haden v. Sioux City & P. R. Co. 99 Iowa, 735; Worden v. Humeston & S. R. Co. 76 Iowa, 310.
[6] Scagel v. Chicago, M. & St. P. R. Co. 83 Iowa, 380.
[7] Gorman v. Minneapolis & St. L. R. Co. 78 Iowa, 509.
[8] Scheffler v. Minneapolis & St. L. R. Co. 32 Minn. 518.
[9] Galveston, H. & S. A. R. Co. v. Arispe, 81 Tex. 517.
[10] Sellars v. Foster, 27 Neb. 118.

conclusions arrived at by them with reference to the probable length of life, and refer to the tables and *data* upon which their knowledge is based in whole or in part, as a means of refreshing their memory.[1]

But tables showing the expectancy of life do not furnish absolute and conclusive rules for the guidance of the court and jury,[2] and they are not conclusive,[3] but are to be considered with the other circumstances in proof, and given weight accordingly.[4] And they are to be considered with relation to the peculiar conditions surrounding the person, such as the existence of diseases and other conditions tending to shorten life.[5] So, jurors are permitted, but not required, to make use of annuity tables,[6] which are not necessary evidence for the purpose of estimating the expectation of life.[7] The jury may make their estimate from the age, health, vocation, and physical conditions of the person without reference to such tables.[8] But mortality tables are binding as to the expectancy of life in an action involving that question, in the absence of any other evidence from which the jury can intelligently judge.[9]

The American table of mortality has superseded the Carlisle tables in America, and should be resorted to by the courts as a basis for the calculation of annuities dependent upon the probability of human life.[10] But it detracts nothing from the value of a table of expectancy properly admitted, that other tables are also recognized.[11] And the admission in evidence, in an action for a personal injury resulting in death, of Dr. Farr's table, constructed

[1] Shover v. Myrick, 4 Ind. App. 7.

[2] Joliet v. Blower, 155 Ill. 416; Vicksburg & M. R. Co. v. Putnam, 118 U. S. 545, 30 L. ed. 257.

[3] Central R. Co. v. Crosby, 74 Ga. 737, 58 Am. Rep. 463; Scheffler v. Minneapolis & St. L. R. Co. 32 Minn. 518; Friend v. Ingersoll, 39 Neb. 717.

[4] Joliet v. Blower, 155 Ill. 416; Friend v. Ingersoll, 39 Neb. 717.

[5] Greer v. Louisville & N. R. Co. 94 Ky. 169.

[6] Savannah, A. & M. R. Co. v. McLeod, 94 Ga. 530.

[7] Deisen v. Chicago, St. P. M. & O. R. Co. 43 Minn. 454.

[8] Deisen v. Chicago, St. P. M. & O. R. Co. 43 Minn. 454; Mary Lee Coal & R. Co. v. Chambliss, 97 Ala. 171; Atchison, T. & S. F. R. Co. v. Hughes, 55 Kan. 492.

[9] Nelson v. Lake Shore & M. S. R. Co. 104 Mich. 582.

[10] Gordon v. Tweedy, 74 Ala. 232, 49 Am. Rep. 813.

[11] Boettger v. Scherpe & K. Architectural Iron Co. 136 Mo. 531.

from the official records of the registrar general for England and Wales, known as the English tables, is not reversible error as against the defendant, though they differ from the tables based upon American experience and recognized by statute, as they show a less number of years than the American table.[1]

§ 3. *Almanacs.*

As a general rule the almanac is regarded and held as a part of the law of the land,[2] and is governed by the ordinary rules applicable to all general laws, and need not be specially pleaded.[3] And an almanac for the year in question is admissible in evidence to prove at what hour the moon rose on a designated night in such year, where that question is material.[4] And it may be admitted in a trial for burglary for the purpose of showing when the sun set on the day on which the crime was committed, not strictly as evidence, but to refresh the memory of the court and jury, the matter being one of which the court will take judicial notice.[5] So, the courts will take judicial notice on what day a certain event occurred, and the almanac is legal evidence of it.[6] And they will take judicial notice of the coincidence of the days of the month with days of the week as shown by the almanac.[7] But dates and other matters of which judicial notice is taken need not be put in evidence, the almanac in such cases being used, not strictly as evidence, but for the purpose of refreshing the memory.[8] And refusal to permit counsel to refer to the almanac to show, in support of his argument against the truth of the testimony of a witness, that a certain date fell on Sunday, is error, as judicial notice is to be taken of dates without evidence.[9] But while the court will take judicial notice of the time the sun rose on the morning of a particular day, and the fact need not be proved, the admission of the almanac in evidence to establish it is

[1] Cooper v. Lake Shore & M. S. R. Co. 66 Mich. 261.
[2] Finney v. Callendar, 8 Minn. 41; Tutton v. Darke, 5 Hurlst. & N. 647.
[3] Finney v. Callendar, 8 Minn. 41.
[4] Munshower v. State, 55 Md. 11, 39 Am. Rep. 414.
[5] State v. Morris, 47 Conn. 179.
[6] Brough v. Perkins, 6 Mod. 81.
[7] Sprowl v. Lawrence, 33 Ala. 674; Allman v. Owen, 31 Ala. 167.
[8] Wilson v. Van Leer, 127 Pa. 372.
[9] Wilson v. Van Leer, 127 Pa. 372.

not error.[1] And the admission of the almanac to prove when the moon rose on a particular day is not prejudicial error, as judicial notice will be taken of the time the moon rises and sets on the several days of the year, as well as the succession of the seasons, the difference of time in different longitudes, and the constant and invariable course of nature,[2] as the presumption would be that the time was correctly stated in the almanac, and that the jury found accordingly,[3] though it has been held that the almanac is not evidence of the time the sun rises on a particular day.[4]

So, reading from an almanac in an argument before the jury is not subject to objection as having been brought forward at so late a stage of the case as to deprive the opposing party of the benefit of an answer, as, like any other argument or illustration, it may be made by counsel at the end of the case.[5] But while the court will take judicial notice of the dates in the calendar, it will not take notice of the hours, and the fact that a designated hour in a certain month would be after sunset, if material, must be proved.[6] And a party objecting to the admission in evidence of an almanac to show the time the sun rose on a particular day must specify the grounds of his objection.[7]

II. Inexact sciences.

§ 1. *General rule as to admissibility.*

The weight of current authority is decidedly against the admission of books of inductive, as distinguished from exact, science, in evidence before a jury, though in some of the states they are admissible;[8] and the rule is stated generally that scientific books are inadmissible as evidence in chief,[9] though they are standard

[1] People v. Chee Kee, 61 Cal. 404.
[2] Case v. Perew, 46 Hun, 57.
[3] Mobile & B. R. Co. v. Ladd, 92 Ala. 287.
[4] Tutton v. Darke, 5 Hurlst. & N. 647.
[5] Wilson v. Van Leer, 127 Pa. 372.
[6] Collier v. Nokes, 2 Car. & K. 1012.
[7] People v. Chee Kee, 61 Cal. 404.
[8] Bloomington v. Shrock, 110 Ill. 219, 51 Am. Rep. 679, *dictum;* Foggett v. Fischer, 23 App. Div. 207.
[9] Forest City Ins. Co. v. Morgan, 22 Ill. App. 198; Epps v. State, 102 539; State v. Baldwin, 36 Kan. 1; Whiton v. Narragansett F. & M. 110 Mass. 24; People v. Millard, 53 Mich. 63; Melvin v. Easley, 46 l Jones L.) 387, 62 Am. Dec. 171.

works on the subject to which they relate.[1] Scientific books are not evidence of any facts stated in them, though they are admissible for the purpose of showing, when material, the state of invention, the course of composition, the meaning of words, and the theories or opinions which prevailed in the age in which they were written.[2] And a statement by the judge that a scientific book which had been read to the jury was entitled to as much authority as a witness who had been examined as an expert on the question involved is a clear violation of a statute forbidding a judge to express an opinion on the facts of the case.[3] So, the general rule is that the statements of a medical book are not admissible in evidence as authority on medical subjects.[4] Though regarded as authoritative, they cannot be read as independent evidence of the opinions and theories therein expressed and advocated.[5] And they are not admissible, whether proved to be standard works or not, except to discredit a witness who bases his testimony upon them,[6] or has referred to them as authority.[7] Their contents cannot be got before the jury unless an expert witness states that a certain book lays down a certain proposition.[8] And a witness cannot be allowed to read from his own published works to support his testimony any more than he can be allowed to read from any other author.[9]

[1] Epps v. State, 102 Ind. 539.

[2] State v. Brown, 4 R. I. 528, 70 Am. Dec. 168.

[3] Melvin v. Easley, 46 N. C. (1 Jones L.) 387, 62 Am. Dec. 171.

[4] People v. Millard, 53 Mich. 63; People v. Hall, 48 Mich. 482, 42 Am. Rep. 477; People v. Goldenson, 76 Cal. 328; Gale v. Rector, 5 Ill. App. 481; State v. Baldwin, 36 Kan. 1; Ware v. Ware, 8 Me. 42; Tucker v. Donald, 60 Miss. 460, 45 Am. Rep. 416; Re Mason, 60 Hun, 46; Foggett v. Fischer, 23 App. Div. 207; Melvin v. Easley, 46 N. C. (1 Jones L.) 387, 62 Am. Dec. 171; Legg v. Drake, 1 Ohio St. 287; State v. O'Brien, 7 R. I. 336; Stilling v. Thorp, 54 Wis. 528, 41 Am. Rep. 60; Reg. v. Taylor, 13 Cox, C. C. 77; Darby v. Ouseley, 36 Eng. L. & Eq. 518, 1 Hurlst. & N. 12.

[5] Union P. R. Co. v. Yates, 49 U. S. App. 241, 25 C. C. A. 103, 79 Fed. Rep. 584; Tucker v. Donald, 60 Miss. 460, 45 Am. Rep. 416; Stilling v. Thorp, 54 Wis. 528, 41 Am. Rep. 60.

[6] People v. Goldenson, 76 Cal. 328; Hall v. Murdock (Mich.) 4 Det. L. N. 554.

[7] Hall v. Murdock (Mich.) 4 Det. L. N. 554.

[8] People v. Vanderhoof, 71 Mich. 158.

[9] Mix v. Staples, 44 N. Y. S. R. 399.

So, passages from a work on mental diseases cannot be read i evidence in an action involving the question of sanity or insan ity,[1] though of established reputation.[2] And a book on medica jurisprudence is not admissible in evidence in a case in which th question of the existence of paralysis caused by hysteria is a issue, to show that the symptoms testified to by one of the wit nesses were common in hysteria, and that this was one of the ex isting causes of paralysis.[3] Nor can extracts from Copeland' Medical Dictionary, referring to paralysis, be admitted as primar evidence.[4] And a book treating from a medical and scientifi standpoint of the effect upon the spine and nervous system of certain fall or jar is not admissible in an action for a persona injury.[5] Nor are medical books, though proved to be of standar authority, admissible to prove the nature and probable effect o personal injuries in an action to recover damages therefor.[6] An they are not admissible in an action for slander in imputing th prescribing of medicine in improper doses, to show that suc doses were sanctioned.[7] And the United States Dispensatory i not admissible to establish a fact therein stated,[8] or to show th medicinal effects of tobacco, in a prosecution for keeping a sho open on Sunday, under the claim that it fell within an exceptio with relation to retail sales of drugs and medicines.[9] Nor is book on the subject of diseases of horses, though of establishe reputation, admissible on the trial of the question whether a hors had at a particular time a disease of which he afterwards died.[10] So, medical experts cannot be permitted to testify to statement made in medical books.[11] And counsel for the accused in a crim inal prosecution cannot be permitted to read what had been sai by a physician of high authority, on the question involved, in

[1] Fraser v. Jennison, 42 Mich. 206; Com. v. Wilson, 1 Gray, 338.
[2] Com. v. Wilson, 1 Gray, 338.
[3] Huffman v. Click, 77 N. C. 55.
[4] Tucker v. Donald, 60 Miss. 460, 45 Am. Rep. 416.
[5] Johnston v. Richmond & D. R. Co. 95 Ga. 685.
[6] Gallagher v. Market Street R. Co. 67 Cal. 13, 56 Am. Rep. 713.
[7] Collier v. Simpson, 5 Car. & P. 74.
[8] Boehringer v. A. B. Richards Medicine Co. 9 Tex. Civ. App. 284.
[9] Com. v. Marzynski, 149 Mass. 68.
[10] Harris v. Panama R. Co. 3 Bosw. 7.
[11] Re Mason, 60 Hun, 46.

medical journal, to an expert, and ask him whether he concurred in the views there given.[1] Nor can the statement of a medical book be placed before the jury by reading therefrom to the witness and then asking him whether there was a case reported similar to the one therein stated.[2] And a medical expert called upon to testify in a prosecution for homicide in which strangulation was alleged cannot be permitted to testify as to what was said in standard works upon the subject of strangulation, and what effect would be produced upon the body of the deceased when death resulted from such cause.[3] Nor can experts be asked, where insanity is alleged, to name the circumstances of cases they have read where violence accompanied hysterical mania, as such examination would be in effect the introduction of the medical works containing such cases in evidence,[4] and evidence of a medical expert as to whether delusions or transitory mania are a condition recognized by medical authorities, offered for the purpose of proving that the theory in question is taught by the authorities, is not admissible, as the works themselves would be the only competent evidence of what they teach.[5] And refusal to permit a witness who had given his opinion as to the sanity of another to answer a question whether he had read an article in a journal on insanity in which designated statements were made, and whether they accorded with his knowledge and experience on the subject, is not an abuse of discretion, as the answer would have been but a reiteration in another form of the opinion he had already expressed.[6]

So, the fact that an expert witness in a prosecution for homicide read passages in a work on medical jurisprudence to which he was referred on cross-examination, and with relation to which he answered questions, does not render the book admissible.[7] Nor does the fact that counsel for the accused ceased to cross-examine a medical witness upon the ground that he might afterwards quote a book on medical jurisprudence against him.[8]

[1] State v. Coleman, 20 S. C. 441.
[2] Marshall v. Brown, 50 Mich. 148.
[3] Boyle v. State, 57 Wis. 472, 46 Am. Rep. 41.
[4] People v. Goldenson, 76 Cal. 328.
[5] State v. Winter, 72 Iowa, 627.
[6] State v. Winter, 72 Iowa, 627.
[7] State v. O'Brien, 7 R. I. 336.
[8] State v. O'Brien, 7 R. I. 336.

Medical books are not books of science or art which are admissible in evidence under a statutory provision making books of science or art, when made by persons indifferent between the parties, presumptive evidence of facts of general notoriety and interest.[1] And facts of general notoriety and interest, which, under the California Code of Civil Procedure, may be proved by books of science or art, refer to facts of a public nature, not existing in the memory of men, as contradistinguished from facts of a private nature existing within the knowledge of living men and as to which they may be examined.[2] And a medical book which but one medical expert pronounced to be a standard work, admitting that some of the greatest physicians and surgeons had disputed its authority, while five other medical witnesses testified that it was not regarded as a modern or standard work, should not be regarded as authoritative, and accepted as competent evidence to establish a medical fact under such a statute.[3] Nor are extracts from a book which is a standard scientific authority with relation to appliances for stopping trains and the devices required therefor admissible in evidence on a question of negligence in stopping a train, where the negligence was not claimed to be in the equipment of the train, and the extracts did not give the size of the train, the pressure applied to the brakes, or the character of the grade, and it did not appear what the conditions were under which the trains were stopped.[4] But competent physicians and surgeons may testify as to who are standard authors, and as to what treatment they prescribe, in an action for damages against a physician for unskilful surgery.[5]

A mere objection that books offered to be read in evidence are immaterial, however, and not that they are incompetent or wholly inadmissible, is not sufficient to raise the question of their admissibility on appeal.[6] And though statements of medical books are

[1] Union P. R. Co. v. Yates, 49 U. S. App. 241, 79 Fed. Rep. 584, 25 C. C. A. 103.

[2] Gallagher v. Market Street R. Co. 67 Cal. 13, 56 Am. Rep. 713.

[3] Union P. R. Co. v. Yates, 49 U. S. App. 241, 79 Fed. Rep. 584, 25 C. C. A. 103.

[4] Burg v. Chicago, R. I. & P. R. Co. 90 Iowa, 106.

[5] Brodhead v. Wiltse, 35 Iowa, 429.

[6] Ripon v. Bittel, 30 Wis. 614; State v. Sexton (S. D.) 72 N. W. 84.

inadmissible, their admission is not a ground for reversal on appeal, where both parties introduced and had the benefit of such evidence, and the question was not raised on the trial by proper and specific objections.[1] Nor will a verdict in a criminal prosecution be vitiated by the fact that books on the subject of the crime committed, which had been inadvertently left on the table, were consulted by the jury during their deliberations, in the absence of evidence as to their contents or that they influenced the jury to the prejudice of the defendant.[2] But where scientific works have been read as evidence, the jury cannot be permitted to take them into the jury room when they retire for deliberation where the portions read had not been marked.[3]

§ 2. *Reasons for the rule.*

The reasons for the nonadmissibility of scientific books in evidence are: First, that experiment and discovery are so constantly changing the theories on scientific subjects that the books of last year may contain something which this year everybody rejects as absurd; secondly, the books may be a compilation of a compilation, and thus hearsay evidence of the most extreme kind; and thirdly, that the authors do not write under oath, and cannot be cross-examined as to the reasons and grounds for their opinions.[4] Medicine is not to be considered as an exact science, but rather as an inductive one, based on *data* subject to change from year to year, and medical books are not, therefore, admissible as evidence of the opinions contained in them.[5] And extracts from medical works, however high their character, are nothing but the written statements of the opinion of the author,[6] and are mere hearsay, and inadmissible as such.[7] So, books of medical jurisprudence lack the sanction of an oath, and are not admissi-

[1] Kreuziger v. Chicago & N. W. R. Co. 73 Wis. 158.

[2] People v. Draper, 1 N. Y. Crim. Rep. 139.

[3] State v. Gillick, 10 Iowa, 98.

[4] Johnston v. Richmond & D. R. Co. 95 Ga. 685.

[5] Gallagher v. Market Street R. Co. 67 Cal. 13, 56 Am. Rep. 713.

[6] Tucker v. Donald, 60 Miss. 460, 45 Am. Rep. 416; Boehringer v. A. B. Richards Medicine Co. 9 Tex. Civ. App. 284.

[7] People v. Millard, 53 Mich. 63; Reg. v. Taylor, 13 Cox, C. C. 77.

ble in evidence for that reason.[1] And the grounds of belief of the writers, and their process of reasoning, cannot be tested by cross-examination.[2] Scientific or expert testimony must be given by living witnesses, who can be cross-examined concerning their means of knowledge, and can explain in language open to general comprehension what it is necessary for the jury to know, and this cannot be done by resort to their writings.[3]

§ 3. *The contrary rule.*

A few of the cases have adopted the doctrine that the opinion of an author as contained in his works is better evidence than the mere statement of an opinion by a witness who testifies as to his recollection of it from former reading.[4] Within this doctrine, standard medical works are admissible as evidence of the author's opinion upon questions of medical skill or practice,[5] and may be given to the jury with a proper explanation of the technical terms used in them.[6] In a subsequent case, however, in the United States circuit court of appeals, arising in Iowa, the court refused to follow the rule laid down in *Bowman* v. *Woods*, 1 G. Greene, 441, which is the pioneer case holding the above doctrine, upon the ground that it was a decision construing the common law.[7] And though scientific works on medical jurisprudence are deemed to be admissible and allowed to be read on a criminal prosecution before the court and jury, they have not the weight of legal authorities, except so far as the views expressed in them on the subject in question have been sustained by judicial rulings and decisions.[8] As to the effect of statutes making books of science or art, etc., made by indifferent persons, presumptive evidence of facts of general notoriety or interest, see *supra*, § 1.

[1] State v. O'Brien, 7 R. I. 336; State v. Baldwin, 36 Kan. 1; Boehringer v. A. B. Richards Medicine Co. 9 Tex. Civ. App. 284.

[2] State v. Baldwin, 36 Kan. 1; Ware v. Ware, 8 Me. 42; Gale v. Rector, 5 Ill. App. 481.

[3] People v. Hall, 48 Mich. 482, 42 Am. Rep. 477.

[4] Bowman v. Woods, 1 G. Greene, 441.

[5] Bowman v. Woods, 1 G. Greene, 441; Merkle v. State, 37 Ala. 139; Bales v. State, 63 Ala. 30; Stoudenmeier v. Williamson, 29 Ala. 558.

[6] Stoudenmeier v. Williamson, 29 Ala. 558; Bales v. State, 63 Ala. 30.

[7] Union P. R. Co. v. Yates, 49 U. S. App. 241, 79 Fed. Rep. 584, 25 C. C. A. 103.

[8] State v. West, Houst. Crim. Rep. (Del.) 371.

§ 4. *Opinions founded on books.*

Though scientific and medical books are not deemed admissible in evidence, expert witnesses may give their opinions and the grounds therefor, though they may in some degree have been founded on books as a part of their general knowledge.[1] Medical witnesses in giving their opinions as experts are not confined to opinions derived from their own observation and experience, but may give opinions based on information derived from books;[2] and they are entitled to speak from accepted facts of medical science, though they seem to have little knowledge of the subject beyond that derived from books,[3] or though their knowledge thereof is derived from study alone.[4] Thus, an expert witness in an action on a contract of warranty of a horse which subsequently died, who had stated that he had read various standard authors on the subject of horse diseases, and had given his own opinion in respect to the character of the disease of which the animal died, may be asked for his best medical opinion according to the best authors.[5] But the judgment or opinions which they give must be their own, and not merely that of the author; and it is not improper for them to give the source of their opinions, and state that all writers and authors on the subject, so far as they know, support them in their position.[6] It has been held, however, that the opinions of physicians upon a medical subject are not admissible where they have not had any experience whatever on the subject, and all they know of it is derived from medical or scientific books and medical instruction.[7]

§ 5. *Use of, on examination.*

Counsel may use the statements of a physician of high standing in a medical journal for the purpose of framing questions to be

[1] Carter v. State, 2 Ind. 617; State v. Baldwin, 36 Kan. 1; Melvin v. Easley, 46 N. C. (1 Jones L.) 387, 62 Am. Dec. 171; Collier v. Simpson, 5 Car. & P. 74.

[2] State v. Terrell, 12 Rich. L. 321.

[3] Marshall v. Brown, 50 Mich. 148.

[4] Taylor v. Grand Trunk R. Co. 48 N. H. 304, 2 Am. Rep. 229; State v. Wood, 53 N. H. 484.

[5] Pierson v. Hoag, 47 Barb. 243.

[6] State v. Baldwin, 36 Kan. 1.

[7] Soquet v. State, 72 Wis. 659.

asked an expert witness as to his own opinions.[1] A technical medical question asked an expert, in which the language of a standard medical author is substantially repeated, is not thereby rendered objectionable.[2] And whether the questions are put from memory or read from such medical works is immaterial.[3] So, a scientific witness may refresh his recollection by reference to standard authorities prepared by persons of acknowledged ability.[4] But the opinion which he gives must be his own independent of such authorities.[5] And the court will take judicial notice of the meaning of a compound word found in a statute, and a standard authority like Webster's Unabridged Dictionary may be used before the court or jury to refresh the memory of the court, and the definition in such dictionary may be given in evidence to the jury.[6] So, a witness may use an engraving, however made, to illustrate his meaning in an action for malpractice in unsuccessful surgery, but when offered as a part of a medical work, or as the work of some distinguished medical man, it should be excluded, as this would give it undue importance to the jury.[7] And while no part of the book called Modern Pocket Hoyle can be used as evidence in itself of what constitutes the game of faro, a page of it containing a pictorial representation of faro may be used in a prosecution for dealing and playing the game as a diagram by which the witness illustrates his testimony.[8]

§ 6. *Use of, to sustain or discredit experts.*

Books referred to by a medical expert as furnishing a basis for his opinion cannot be used to support his testimony,[9] and the contents of medical books are not competent for the purpose of showing that certain expert witnesses were sustained in their opinions.[10] And a medical expert who has testified as to his

[1] State v. Coleman, 20 S. C. 441.
[2] Tompkins v. West, 56 Conn. 478.
[3] Connecticut Mut. L. Ins. Co. v. Ellis, 89 Ill. 516.
[4] State v. Baldwin, 36 Kan. 1; Huffman v. Click, 77 N. C. 55.
[5] State v. Baldwin, 36 Kan. 1; Huffman v. Click, 77 N. C. 55.
[6] Adler v. State, 55 Ala. 16.
[7] Ordway v. Haynes, 50 N. H. 159.
[8] People v. Gosset, 93 Cal. 641.
[9] Gallagher v. Market Street R. Co. 67 Cal. 13, 56 Am. Rep. 713.
[10] Fox v. Peninsular White Lead and Color Works, 84 Mich. 676; Davis v. State, 38 Md. 15.

opinion of the question of sanity or insanity cannot be asked on direct examination as to whether the theory in question is supported by the authorities, the medical works themselves being the best evidence as to what they teach.[1] Nor is the evidence of a medical expert as to whether he was familiar with a scientific work, and whether or not it was a standard work, admissible as tending to prove familiarity upon his part with the authors upon that subject.[2]

So, the weight of current authority is against allowing scientific works to be read from to contradict an expert generally.[3] And an expert witness who has given his opinion in evidence cannot be discredited by reading opinions stated in certain medical works on the subject concerning which he testified.[4] Nor can a medical book, stated by an expert witness upon the question of sanity or insanity to be an authority, be read in evidence for the purpose of contradicting the evidence of another expert witness given upon cross-examination.[5] An expert may state, however, that his opinion is derived from standard books, and if he fails to remember or state what particular books he has read or culled his authority from, there is no way to contradict the assertion he makes.[6] But where a medical expert verifies an opinion which he has given by referring to medical works of standard authority from which it was derived and upon which it was predicated, the books themselves may be subsequently offered for the purpose of showing that they did not support the opinion expressed, or that they contradicted it.[7] And evidence as to what is said in a medical book, if admitted, may be contradicted by producing the book.[8] An expert witness assuming to be versed in a particular

[1] State v. Winter, 72 Iowa, 627.

[2] People v. Sutton, 73 Cal. 243.

[3] Bloomington v. Shrock, 110 Ill. 219, 51 Am. Rep. 679; Forest City Ins. Co. v. Morgan, 22 Ill. App. 198; Davis v. State, 38 Md. 15; Darby v. Ouseley, 36 Eng. L. & Eq. 518, 1 Hurlst. & N. 12.

[4] Knoll v. State, 55 Wis. 249, 42 Am. Rep. 704.

[5] Macfarland's Trial, 8 Abb. Pr. N. S. 57.

[6] People v. Vanderhoof, 71 Mich. 158.

[7] Union P. R. Co. v. Yates, 49 U. S. App. 241, 79 Fed. Rep. 584, 25 C. C. A. 103; Gallagher v. Market Street R. Co. 67 Cal. 13, 56 Am. Rep. 713; Bloomington v. Shrock, 110 Ill. 219, 51 Am. Rep. 679.

[8] People v. Millard, 53 Mich. 63; Ripon v. Bittel, 30 Wis. 614.

science, and to be familiar with the best books concerning it, who borrows credit for the accuracy of his statements by referring to particular books, implying that he echoed the opinion thereof, may be contradicted by placing them in evidence and reading therefrom to the jury.[1] And an expert who had given his opinion upon a scientific question, and testified that certain books were standard works on the subject, may be asked, after reading certain passages upon the subject in question, whether or not he agreed with what was stated in such passages.[2] But refusal to allow counsel to read in surrebuttal certain portions of a medical treatise to discredit and contradict an expert witness who had testified for the other side is not reversible error where it does not appear that the expert predicated his opinion upon that treatise, and the court offered to allow any portion relevant to the testimony of the witness, and which tended to contradict him, to be read,—especially where the portions excluded had not been incorporated into the bill of exceptions.[3]

§ 7. *Use of, on cross-examination.*

The established rule that it is not competent to read from medical books to the jury cannot be evaded on cross-examination, and counsel cannot call the attention of expert witnesses thereon to certain medical works and read therefrom to the jury.[4] And scientific books which are not admissible in evidence on direct examination cannot be admitted on cross-examination, where their introduction is not for the purpose of direct contradiction of something asserted by the witness, but simply to prove a contrary theory.[5] Reference to books of approved authority upon the subject under investigation, however, is proper on cross-examination in order to test the learning of the witness.[6] And a physician who had stated on direct examination that he derived his knowledge of a particular subject, not from experience or observation, but from reading or studying medical works, may be cross-exam-

[1] Pinney v. Cahill, 48 Mich. 584.
[2] Egan v. Dry Dock, E. B. & B. R. Co. 12 App. Div. 556.
[3] People v. Goldenson, 76 Cal. 328.
[4] Hall v. Murdock (Mich.) 4 Det. L. N. 554.
[5] Bloomington v. Shrock, 110 Ill. 219, 51 Am. Rep. 679.
[6] Hess v. Lowrey, 122 Ind. 233, 7 L. R. A. 90.

ined as to his general reading, not by putting the books in evidence, but by inquiring whether he had not found particular theories laid down in them conflicting with the theory he had advanced.[1] So, an expert who has testified as to his opinion upon a scientific question may be cross-examined by inquiring as to the extent of his knowledge and his familiarity with the accredited standard authors of his profession.[2] And asking medical experts whether certain statements were not made by certain writers, the statements referred to being read from a book held by counsel as a part of the question, is a proper method of cross-examination.[3] And they may be asked whether they have read particular medical books.[4] So, to ask a medical expert, who had given his opinion upon a scientific question and stated that it was based upon medical authorities, to state what medical authorities held upon that question, is within the proper and legitimate scope of cross-examination, and not subject to the objection that the testimony consists, not of the opinions of the witnesses, but of those of the medical authorities.[5] And a physician who had made a diagnosis of a disease and pronounced it delirium tremens may be cross-examined by reading paragraphs from standard authorities which he claimed to have read on that disease and asking him if he agreed with the authors, for the purpose of testing the knowledge possessed by him of that disease.[6]

Questions put to a medical expert on cross-examination, as to extracts from works which he claimed to have read, however, should be strictly limited to the one purpose of testing his competency as an expert and the value of his opinion;[7] and great care should be taken by the court to confine the cross-examination within reasonable limits, and see that the quotations read to the witnesses are so fairly selected as to present the author's views on the subject of the examination.[8] And it is not competent to ask

[1] State v. Wood, 53 N. H. 484.
[2] Hutchinson v. State, 19 Neb. 262.
[3] Hess v. Lowrey, 122 Ind. 233, 7 L. R. A. 90.
[4] Darby v. Ouseley, 36 Eng. L. & Eq. 518, 1 Hurlst. & N. 12.
[5] Hutchinson v. State, 19 Neb. 262; State v. Winter, 72 Iowa, 627.
[6] Connecticut Mut. L. Ins. Co. v. Ellis, 89 Ill. 516.
[7] Fisher v. Southern P. R. Co. 89 Cal. 399.
[8] Connecticut Mut. L. Ins. Co. v. Ellis, 89 Ill. 516.

an expert witness whether he was acquainted with a certain scientific work, and, upon his answering in the affirmative and that it was a standard authority, to read at length from the book and inquire of the witness whether he agreed with the author as to the part read, where the object was, not the contradiction of the witness as to something asserted by him, but simply to prove a contrary theory;[1] or where the extracts do not contradict his evidence, and were evidently intended to sustain the theory of the cross-examining party.[2] So, a medical witness in a prosecution for murder who states that a certain medical work draws a distinction between an autopsy and an external examination, distinguishing the latter as an examination of the body, cannot be handed the book on cross-examination and asked to refer to that part of it in which such an examination was so distinguished.[3] And a refusal to permit medical witnesses to answer questions as to whether certain medical works, naming them, were standard authorities, is not error where no previous mention of them had been made.[4]

§ 8. *Use of, in argument.*

A majority of the cases lay down the rule that scientific and medical works cannot be read to the jury by counsel in argument though they are standard works of established authority.[5] Within this doctrine counsel for a person accused of crime, who sets up insanity as a defense, has no right, in his address to the jury, to quote the opinions of medical men as given in their works.[6] And a book considered as authority on railroad injuries, and extracts from such book, cannot be read by counsel in summing up to the jury as a part of his argument.[7] And failure to object to the

[1] Bloomington v. Shrock, 110 Ill. 219, 51 Am. Rep. 679.

[2] Fisher v. Southern P. R. Co. 89 Cal. 399.

[3] Davis v. State, 38 Md. 15.

[4] Fox v. Peninsular White Lead & Color Works, 84 Mich. 676.

[5] Ashworth v. Kittridge, 12 Cush. 193, 59 Am. Dec. 178; Washburn v. Cuddihy, 8 Gray, 430; Com. v. Brown, 121 Mass. 69; Com. v. Sturtivant, 117 Mass. 130, 19 Am. Rep. 401; Huffman v. Click, 77 N. C. 55; Burt v. State (Tex. Crim. App.) 39 L. R. A. 305; Re Mason, 60 Hun, 46.

[6] Queen v. Crouch, 1 Cox, C. C. 94; Burt v. State (Tex. Crim. App.) 39 L. R. A. 305.

[7] Robinson v. New York C. & H. R. R. Co. 24 Alb. L. J. 357, 20 Blatchf. 338.

omission of the court to restrain counsel who, in his address to the jury reads and comments on books of science as evidence in the cause, is not a waiver of the error, as it is the duty of the judge in his instructions to present the case properly, and correct any errors into which counsel may have fallen.[1] Extracts from books containing the opinions or acquisitions of learned or scientific persons or witnesses upon a point in issue, which are inadmissible in evidence, and which are offered during the introduction of testimony by the parties, should not be permitted to be read to the jury at any time.[2] But it will be presumed on appeal that medical works read in evidence against objection were read for some legitimate purpose, where the bill of exceptions does not purport to contain all the evidence.[3]

The reason for this rule is that when books are thus offered they are in effect used as evidence, and are statements wanting the sanction of an oath.[4] Quotations from medical works are not admissible as evidence when offered independently, or when read by witnesses; and it follows that counsel ought not to be allowed to read them to the jury,—especially when they are not proved to come from works of standard authority in the profession, as the opinions of medical experts are in the nature of facts to be established by living witnesses, and not to be proved by hearsay alleged to have come from those not proved to be competent.[5]

In some of the states, however, the practice prevails of permitting counsel while addressing the jury to read extracts from law books, and from scientific works, as a part of their argument.[6] And the privilege has been said to be a valuable one which ought not to be restrained, though susceptible of abuse.[7] Within this doctrine, extracts from scientific and medical works which have been accepted as authority may be read to the jury by counsel

[1] Melvin v. Easley, 46 N. C. (1 Jones, L.) 387, 62 Am. Dec. 171.

[2] Jones v. Doe, Little Blue River Regular Baptist Church, Smith (Ind.) 47.

[3] Ripon v. Bittel, 30 Wis. 614.

[4] Ashworth v. Kittridge, 12 Cush. 193, 59 Am. Dec. 178.

[5] People v. Wheeler, 60 Cal. 581, 44 Am. Rep. 70.

[6] Union P. R. Co. v. Yates, 49 U. S. App. 241, 79 Fed. Rep. 564, 25 C. C. A. 103.

[7] Wade v. DeWitt, 20 Tex. 398.

when pertinent, by way of argument or illustration and as a part of their argument.[1] Where they are merely argumentative, and contain no opinion or acquisition of learned or scientific witnesses which could be regarded as proper matters of evidence, they may be read or adopted as argument subject to the instructions of the court as to the law of the case.[2] The rule that matters gathered from books or newspapers cannot be used as testimony does not prohibit counsel from using quotations as mere illustration.[3] But they cannot be used as evidence, and it would be an abuse of privilege to make the right to read books in argument the pretense for getting improper matter before the jury.[4] And scientific works on insanity, read from by counsel in argument, cannot be considered or regarded as legal authorities except so far as the views expressed in them are sanctioned and supported by judicial rulings and decisions in the trial of cases.[5] So, where counsel reads from medical books to the jury in his argument, the court should instruct them that such books are not evidence, but simply theories of medical men, and the reading from such books which had not been introduced in evidence or proved to be authority is error unless such instruction is given.[6] But permitting counsel to read extracts from a work on medical jurisprudence during his argument in a criminal prosecution is not error where the court informed the jury that it could not be regarded as evidence, but was simply read as a part of the argument.[7] And the reading by counsel, as a part of his argument, of an essay of his own on dueling, and extracts from a book on duels and dueling, in a prosecution for homicide, is not such an abuse of privilege by counsel as will require reversal and setting aside of a verdict of guilty, where the evidence was such as to demand such a verdict.[8]

Counsel should not be permitted, however, to read medical

[1] State v. Hoyt, 46 Conn. 330; Legg v. Drake, 1 Ohio St. 286; State v. Coleman, 20 S. C. 441.

[2] Jones v. Doe, Little Blue River Regular Baptist Church, Smith (Ind.) 47.

[3] Baldwin v. Bricker, 86 Ind. 221.

[4] Legg v. Drake, 1 Ohio St. 286.

[5] State v. West, Houst. Crim. Rep. (Del.) 371.

[6] Yoe v. People, 49 Ill. 410.

[7] Harvey v. State, 40 Ind. 516; Cory v. Silcox, 6 Ind. 39.

[8] Cavanah v. State, 56 Miss. 300.

authorities to the jury in his argument, where they are not read by way of illustration, but to give the jury a clear view of what such medical writers lay down as evidence on the question in hand.[1] And refusal to permit counsel to read extracts from a work of science or art as a part of his address to the jury is not reversible error where the bill of exceptions does not show that such extracts had any relevancy to the cause on trial, or came within the purport or legitimate scope of argument.[2]

In some jurisdictions the practice of permitting counsel while addressing the jury to read extracts from law books and other scientific works as a part of their argument is regarded as a matter which rests entirely in the sound discretion of the trial court;[3] and an appellate court will not interfere with such discretion unless it is made to appear that it has been abused.[4]

III. Law.

The general rule is that judicial opinions and opinions of counsel are to be excluded as evidence of the law in the trial of a cause, but may be read, and are entitled to consideration, as argument.[5] And counsel may read and comment on the law to the jury in the argument in a criminal case, and invoke the opinion of the judge upon any principle of law involved in it.[6] And a reading by the court, as a part of its charge to the jury, of the law as announced by the appellate court in a former appeal in the same case, is not error where the passages read seem to be correct.[7] So, counsel for the prosecution in a criminal case has the right, in opening, to read to the jury the general observations of a learned judge made in a case previously tried, on the nature and effect of circumstantial evidence, where he adopts them as a

[1] Boyle v. State, 57 Wis. 472, 46 Am. Rep. 41.

[2] Legg v. Drake, 1 Ohio St. 286.

[3] Union P. R. Co. v. Yates, 49 U. S. App. 241, 79 Fed. Rep. 584, 25 C. C. A. 103; Wade v. DeWitt, 20 Tex. 398; Cross v. State, 11 Tex. App. 84; Hudson v. State, 6 Tex. App. 569, 32 Am. Rep. 593; Luning v. State, 1 Chand. (Wis.) 177, 2 Pinney, 215, 52 Am. Dec. 153.

[4] Cross v. State, 11 Tex. App. 84; Hudson v. State, 6 Tex. App. 565; Luning v. State, 1 Chand. (Wis.) 177, 2 Pinney, 215, 52 Am. Dec. 153.

[5] Steiner v. Cox, 4 Pa. 13.

[6] Powell v. State, 65 Ga. 709.

[7] Richmond & D. R. Co. v. Hissong, 97 Ala. 187.

part of his own opinion, and makes them a part of his address.'[1] And the counsel for the accused, in reading to the jury a case from the regular law reports of the state, is not confined to the opinions of the court upon the question of the law therein, but may read, in connection therewith, the statement of the facts of the case, and comment thereon.[2] Nor is the use by counsel for the accused of Phillip's Remarkable Cases of Circumstantial Evidence in argument before the jury objectionable.[3] Permission to counsel to read legal authorities in argument of a cause before the court and jury rests in the sound discretion of the court,[4] and is not subject to revision on appeal except in a clear case of abuse of discretion.[5] It is within the province of the court to determine whether the law proposed to be read is applicable to the facts of the case and the manner of reading it as part of the argument,[6] though it is its duty to check promptly any efforts to induce the jury to disregard the instructions or take the law from the books rather than from the court.[7] But while it is the duty of the jury to receive the law as given them by the court, counsel in their argument may read law to the court in the hearing of the jury, or to the jury in the hearing of the court, subject to the correction of the court in its charge.[8] And where counsel for the prosecution reads instructions to the jury which had been sanctioned by the supreme court as a proper charge, permitting counsel for the defense in reply to read the facts in such case and comment upon the difference in the two cases to show the inapplicability of the charge to the case in hand, is not an abuse of discretion.[9] Nor is refusal of the court to stop the attorney for

[1] Reg. v. Courvoisier, 9 Car. & P. 362.

[2] State v. Hoyt, 46 Conn. 330.

[3] Jones v. State, 65 Ga. 506.

[4] Hines v. State, 3 Tex. App. 483; Hudson v. State, 6 Tex. App. 565, 32 Am. Rep. 593; Curtis v. State, 36 Ark. 284; People v. Anderson, 44 Cal. 65.

[5] Hines v. State, 3 Tex. App. 483; Hudson v. State, 6 Tex. App. 565, 32 Am. Rep. 593; Curtis v. State, 36 Ark. 284.

[6] Curtis v. State, 36 Ark. 284.

[7] People v. Anderson, 44 Cal. 65.

[8] McMath v. State, 55 Ga. 303.

[9] Cross v. State, 11 Tex. App. 84.

the people from reading in the course of his argument extracts from books of law and reports of judicial decisions on matters of law, where the court instructed the jury that it was their duty to decide the case according to the law as it was given by the court, regardless of any law which had been read from books.[1] And refusal to permit counsel for the defense to read in argument cases previously decided is not an abuse of discretion where the court declines to hear them on the ground that it was sufficiently advised as to the law of the case.[2] Nor is a remark by the state's attorney that a book on circumstantial evidence which had been used by counsel for the accused in his argument was a mere romance or fiction, objectionable; but if the judge has reason to believe that the jury were likely to be misled thereby, it would be his duty to state to them the principles which were to guide them.[3] And refusal to permit counsel to read the statement of facts made on a former appeal of the same case, and the decision thereon holding the evidence insufficient, for the purpose of deducing therefrom the insufficiency of the evidence in the case, is not an abuse of discretion.[4] Nor is it error to refuse to permit counsel to read from a law book in his opening speech to the jury,[5] or to exclude portions of a work on mental diseases offered in evidence in a criminal prosecution in which insanity was interposed as a defense, all of which related to the question of the responsibility of the insane person for his acts, containing an elaborate discussion thereof, as the jury is bound to accept the law as given by the court, and is not charged with the duty of determining whether the rules thus given are correct.[6] And it has been held to be error to permit the reading of extracts from a book on insanity where it was not proved to be a standard authority.[7] So, the jury has no right to receive the law from books or from counsel in a will contest, and counsel cannot be permitted against objection to read cases decided in other states and in England for

[1] People v. Treadwell, 69 Cal. 226.
[2] Hudson v. State, 6 Tex. App. 565, 32 Am. Rep. 593.
[3] Jones v. State, 65 Ga. 506.
[4] Dempsey v. State, 3 Tex. App. 429, 30 Am. Rep. 148.
[5] Hall v. Com. (Pa.) 11 Cent. Rep. 183.
[6] State v. Winter, 72 Iowa, 627.
[7] People v. Wheeler, 60 Cal. 581, 44 Am. Rep. 70.

the purpose of showing that facts set forth therein were not inconsistent with the legal significance of soundness of mind as applied to the making of wills.[1] And it has been held that counsel cannot be allowed to read to the jury, and comment upon, decided cases upon the question at issue found in the books of reported cases, the question, so far as it is one of law, being for the consideration of the court only, and so far as it is a question of fact being for the decision of the jury upon the facts given in evidence in the regular course of the trial.[2] But the accused in a criminal prosecution has the right to read to the jury the determination of the court of last resort upon points affecting him in such a manner as to give them a complete knowledge of their particular scope and meaning, where the jury had statutory power to determine the law of the case.[3] It has been said, however, that, as a general rule, the practice of allowing counsel in either civil or criminal cases to read law to the jury is objectionable, and ought not to be tolerated, as its usual effect is to confuse rather than to enlighten them.[4]

IV. Miscellaneous matters.

Ephemeral publications, such as bank directories or reporters, cannot be referred to or produced in court in proof of the facts stated in them.[5] And statements of facts and extracts from books or newspapers cannot be read in evidence.[6] Nor is a gazetteer competent evidence of the distance between two places.[7] And pamphlets commonly known as bank-note detectors are inadmissible to show the worthlessness of a bank bill.[8] So, books explaining a process and terms of art in manufacture, and evidence as to the technical meaning of words in a trade, are not admissible in evidence to explain a statute in which such terms are used.[9] And a volume entitled "The Process and Practice of Life Insur-

[1] Baldwin's Appeal, 44 Conn. 37.
[2] Phœnix Ins. Co. v. Allen, 11 Mich. 501, 83 Am. Dec. 756.
State v. Hoyt, 46 Conn. 330.
[3] People v. Anderson, 44 Cal. 65.
[4] State v. Brown, 4 R. I. 528, 70 Am. Dec. 168.
[5] Baldwin v. Bricker, 86 Ind. 221.
[6] Spalding v. Hedges, 2 Pa. 240.
[7] Payson v. Everett, 12 Minn. 217.
[8] Atty. Gen. v. Cast Plate Glass Co. 1 Anstr. 39.

ance," though a standard work of recognized authority in the business of life insurance, containing rules and modes of calculating and adjusting life insurance, is not admissible in evidence in an action upon a life-insurance policy.[1] And permitting counsel for an insurance company, against objection, to read to the jury a pamphlet prepared by the secretary of the company for the use of its agents, setting forth the qualities of a good agent and what was expected of them, and commenting thereon to illustrate his argument in an action upon a life-insurance policy, is an abuse of discretion preventing a fair trial.[2] So United States Patent Office act of 1836, § 15, providing that the defendant in an action concerning a patent may plead the general issue and give notice in writing that the improvement has been described in some public work anterior to the supposed discovery thereof by the patentee, does not make such public work admissible as evidence of the facts relied on for the purpose of laying a foundation for an inference of some fact sought to be established, or for the purpose of showing that the improvement was operated successfully before the patent issued;[3] though a foreign publication is competent as evidence in regard to the state of an art, and as a foundation for the inquiry whether a patented structure required invention.[4]

Tide tables, however, calculated by celebrated scientific authors and contained in their books, may be read in evidence, and are of equal validity with the almanac.[5] And a record of the weather, kept at a public institution for a number of years, is admissible to show the condition of the weather on a given day included in such record.[6] So, the united acquiescence of millwrights in the accuracy of Leffel's tables, and in the results of computations founded upon them, may be treated as common knowledge of men of that profession, and their computations so made are competent evidence in an action for damages for the diversion of water from a stream.[7] And permitting counsel for plaintiff, in a suit for backing

[1] Mutual L. Ins. Co. v. Bratt, 55 Md. 200.
[2] Union Cent. L. Ins. Co. v. Cheever, 36 Ohio St. 201, 38 Am. Rep. 573.
[3] Seymour v. McCormick, 60 U. S. 19 How. 96, 15 L. ed. 557.
[4] French v. Carter, 137 U. S. 239, 34 L. ed. 664.
[5] Green v. Cornwell, 1 N. Y. City Hall Rec. 11.
[6] De Armond v. Neasmith, 32 Mich. 231.
[7] Garwood v. New York C. & H. R. R. Co. 45 Hun, 128.

water by a dam upon his machinery, to read extracts from Evan's Millwright Guide in the closing argument to the jury, is not error where the court charged that extracts read from scientific works are not of authority, conclusive, or *prima facie*, but, like argument of counsel or anything else adduced to illustrate, they may be satisfactory to the jury or they may not.[1] So, excerpts from reports of the United States department of agriculture, and from engineering books recognized as standard authorities, containing tables showing the tabulated results of tests made to determine the crushing strength and resisting power of different kinds of timber used for building purposes, are admissible in evidence in an action in which the question is whether a building fell from pressure before a fire or as a result of the fire.[2]

[1] Cory v. Silcox, 6 Ind. 39.

[2] Western Assur. Co. v. J. H. Mohlman Co. 51 U. S. App. 577, 83 Fed. Rep. 811.

Medicine, worthy of the name, is largely founded upon, and consists in, sciences quite as exact as those concerned in the construction of almanacs, logarithms, life expectancy insurance tables, or statistics of mechanical experiments. Among the sciences contributing to a knowledge of medicine are chemistry, physics, pharmacy, anatomy, physiology, pathology, hygiene, etc.; all as reliable as the "statistics of mechanical experiments and tabulations thereof," as stated on page 1257, and if "recognition by the profession," also referred to, is the test of exactitude, then it would be pertinent and material to take testimony as to such recognition in medical cases.

Exclusion of books or reference to them delights the designing, dishonest, and ignorant medical witness. Judges and attorneys could have but one opinion of a lawyer who avoided reference to standard legal works. No better test of competency in any profession exists than that of familiarity with the recorded experience and teachings of the past and present.

Reputable medical books are as credible as the engineering and agricultural works referred to in the concluding Federal decision cited above, and if the "united acquiescence of millwrights" suffices to establish authority, the medical profession is entitled to similar recognition. Pages 1275, 1277, afford valuable decisions enabling a challenge of competency, but the attorney must be properly advised as to what are standard writings. The honest expert is always willing, not only to be cross-examined on the literature, but to sustain his testimony on the direct examination by referring to his reading.

Inadequate cross-examination is the explanation of the success of ignorant and dishonest medical witnesses. S. V. C.

INDEX.

Abandonment causing insanity, 982, 1088.
Abdominal disorders causing insanity, 1131.
Abductions, 43.
Abnormal strength, 187.
Aboulic obsessions, 855.
Abscesses in prognosis, 1188.
Abscess of brain, 1080.
Absence of mind, 44, 1087.
  of reasonable motive, 673.
  of witness, as ground for continuance, 558.
Absinthe drinking, 798.
Abstinence, shock of, 627.
Abstract right and wrong test, 18, 129.
Abuse in divorce case, drunken, 748.
  of family by alcoholic insane, 650.
  of insane, 1234.
  of wife by alcoholic, 715.
Abusive letters, 60.
Abusiveness from cocaine, 799.
  of hysterical insanity, 1032.
  of testator, 352.
Accidental death, 43.
  caused by alcoholism, 405.
  caused by laudanum, 405.
  of insured alcoholic, 762.
Accident insurance of alcoholic, 761, 762.
  homicide affecting, 413.
  of epileptic, 1068.
  suicide affecting, 413.
Accidents and alcoholism, 768.
Accountability compared, civil and criminal, 128.
Accounts kept by aged, 908.
  of insane, and wills, 234.
  weight of evidence of entries of, 343.
Accusations, false, 102, 207, 673, 964.
  as evidence of testamentary incapacity, 352.
Accusations—*continued.*
  by asylum inmates, 1235, 1236, 1249, 1250.
  of rape, 673.
Acquaintance with insane person in evidence, 562, 568.
Acrophobia, 845, 855.
Act, ability to recollect, 148.
  as test, knowledge of nature of, 132.
  capacity to understand, in suicide and insurance, 407.
  inability to, 855.
  insanity, connection with particular act, civil, 241.
  itself as evidence, 133, 495, 826, 1047.
    in infanticide, 99.
    in insanity, 68.
    in wills, nature of, 952.
  must be related to insanity, civil, 241.
  not sufficient, insanity at time of civil, 241.
  proof of nature of, 265.
  test of right and wrong as to particular, 130.
Actions, insane, 41.
Acts, 64.
  after head injury, unconscious, 953.
  and conduct in evidence, 508.
    in intoxication, 791.
    in will making, 343, 347.
    proof of, 184, 267.
  before conviction, 93.
  by insane, concerted, 38.
  capacity and wills, 279.
  conduct and declarations in alcoholism, 789.
  during lucid intervals binding, 241.
  evidence of, 490, 508.
  evidence of subsequent, 429.
  in proof of criminal drunkenness, 782.
  of aged, 908.

Acts—*continued.*
of alcoholic, civil, 768.
of alcoholic in evidence, 785.
of alcoholic trance states, 645.
of epileptics, 1041.
of habitual drunkard, 766.
of insane, rational, 68.
of paretic dements, civil, 210.
Acute alcoholic intoxication, 630.
delirious mania, 1068.
dementia, 968.
stage of insanity, treatment in, 1166.
Addictions, morphine and other, 798.
of testator, 354.
Adjudications as to alcoholism, legal, 681.
as to epilepsy, legal, 1065.
as to morphinism, legal, 806.
in civil cases, legal, 288.
in criminal cases, legal, 124.
of lunacy in evidence, 531.
of unsoundness, 272.
Adkin's Case, 865, 871, 900.
Administrator or executor, alcoholic, 756.
of insane, 218.
Admissibility of evidence, 489.
of opinions of experts generally, 536.
Admissions and confessions of alcoholic, proof of, 790.
and declarations of other interested persons, 502.
and declarations of party, 498.
asylum, 1198.
effect of, 192.
Adolescence, 938.
Adolescent responsibility, 118.
Adulterations of alcoholics, 617, 798.
of drink, a defense, 782.
Adultery, a bar to divorce, when, 748.
divorce of alcoholic for, 751.
homicide for, 519, 520.
in evidence, 519.
insanity as affecting divorce for, 392.
may also be rape, 718.
revenge for, 170.
Advanced age and attendant defects of testator, 349.
Advantage taken of alcoholic, 726.
of feeble-minded, 726.
Adventuresses, 210.
Affections, alienated, 40, 170. See also AVERSIONS, PERVERTED.
and wills, perverted, 263.
wills consonant with, 962.
Affective monomania, 971.
Affirmative, defendant's right of, 91.
After commitment, evidence, 192.
trial, epileptic fit, 1067.
verdict, 199.
Age, 902. See also OLD AGE.
and forgetfulness of testator, 353.
and mental capacity in evidence, 534.
and wills, 342.
guardianship, 421.
not insanity, old, 427.
of paretic dements, 1026.
of testator, advanced, 349.
old, 228.
weakness and disease, proof of, 270, 422.
weakness, disease, and wills, 275.
Aged alcoholic, deed of, 781.
alcoholic, will of, 738, 739, 777.
effect of hemiplegia on mind of, 1085.
opium user and wills, 805.
Ages of homicidal lunatics, 94.
of insane, relative, 1119.
Agency, effect of insanity on, 381.
Aggravation of offense, drunkenness as an, 665, 686.
Aggregate asylum system, 1204.
Agitated melancholia, 964.
Agitation in circular insanity, 996.
Agoraphobia, 845.
and dipsomania, 647.
Agraphia, 1078, 1161.
Agraphic epileptic, will of, 1067.
Agreement by alcoholic, 722, 725.
by alcoholic, specific performance of, 723.
Alabama, no test of insanity in, 185.
Alarms in asylums, 1208.
Alcohol a defense, quality of, 782.
adulterants of, 617.

Alcohol—*continued.*
after head injury, physician may testify to effects of, 795.
as a food, 618.
cause of appetite for, 636.
causing insanity, 912.
causing insanity, mitigating offense, 715.
differing effects of, 634.
drugged, 661.
effect of abstinence from, 631.
in consumption, effect of, 1072.
in earlier centuries, 618.
intolerance of, 639.
moderate drinking of, 618.
on savages, effect of, 618.
on the brain, 648.
regulation of sales of, 676.
special susceptibility to, 634.
used by testator, 354, 356, 357.
Alcoholic. See also HABITUAL DRUNKARD.
abuse of wife, 715.
accident insurance of, 761.
accidents to, 768.
acts, conduct, and declarations, 789.
admissions and confessions, proof of, 790.
advantage taken of, 726.
agreement made by, 722.
aphasic, will of, 735.
apoplexy, 621.
assaults, decision concerning, 703.
assaults by, 784.
assault with intent to rape, 706.
atheromatous insanity, 629.
at home and sober abroad, 746.
brain, 628, 630, 633.
breach of promise by, 790.
burden of proof in contracts of, 779.
burden of proof in wills of, 737.
business capacity of, 720, 756, 766.
buying and selling by, 722, 732, 768, 788.
civil acts of, 768.
civil responsibility of, 768.
conditions, *post*, 627.
confessions, 673, 795, 797.
Alcoholic—*continued.*
consent in rape charge, 718.
control of, 680.
deed of, 728, 729, 732.
deed of aged and diseased, 731.
deed of trust by, 733, 741.
definition of habitual, 745.
degenerates, 852.
deliberation, 697.
dementia, 629, 654.
depravity, 623.
derangements, 622.
employee, desertion by, 729.
discharge of, 728.
epilepsy, 524, 627, 631, 644, 1058, 1066.
excesses of authors, 843.
exchange of land by, 722.
executor or administrator, 756.
expelled from temperance insurance company, 761.
feeble-minded, deed of, 732.
fire through negligence of, 769.
forfeiture of wages by, 729.
forgery by, 673, 692.
fraud in contracts of, 721.
fraudulent lease of, 727.
frenzy, homicide, 670.
gastritis, 1072.
hallucinations, 54.
homicide, 670.
bail in, 717.
decisions in, 698.
imbecile, contract with, 726.
immorality, 630.
impulse in pregnancy, 979.
impulse of insane, 852.
in divorce case, neglect by, 753.
reform of, 755.
insane, apparently rational, 665.
contracts with, 721, 727, 780.
delusions, 650.
habeas corpus of, 652.
hallucinations, 651.
homicide by, 95.
laches of, 757.
lucid intervals of, 767.
mortgage by, 723.

Alcoholic—*continued.*
insane occupations of, 639.
insanity, 649.
apparent recovery from, 652.
after abstinence, 631.
cases of, 654.
causes of, 638.
chronic, 648.
diagnosis of, 670.
difficulty of diagnosis in, 654.
in England, 633.
in law, 696.
pathology of, 651.
percentage, 633.
post, 632.
pyromaniacal, 850.
reducing crime, 715.
relations to head injury, 822, 827, 828.
statistics, 638.
symptoms of, 649.
insurance for personal injury of, 762.
insusceptibility, 635.
intoxication, acute, 620.
kidney and liver, 625.
killing of, 718, 790.
kleptomania, 101.
laudanum, suicide by, 763.
legal control of, 677.
liquors, first effects of, 620.
may make valid will, 734.
melancholia, 629.
mendacity, 624.
mental effects, 620, 622.
mental derangement may continue, 780.
minor, offense of, 714.
mortgage by, 722, 730, 778.
mortgage of lunatic and, 723.
natural selection, 618.
note of feeble-minded, 726.
notes drawn by, 722, 726, 767, 781, 788.
paralysis, 633.
paralytic, will of, 735.
paretic dementia, 648.
case of, 1101.
recovery of, 1098.
Alcoholic—*continued.*
payments made by, 722, 724, 725.
made to, 768.
personal injury through, 786.
physically incapacitated, 730.
physician attesting will, evidence of, 795.
pneumonia, 633.
polyneuritis, 624.
prodigality and waste, 673.
rage, 622.
receipt for wages, 768.
recovery of money paid by, 722.
reform of, 677.
relapses, 70.
rescinding contracts of, 724.
resentment, 621.
responsibility, 3, 635, 671, 684, 712.
restraint and guardianship, 763.
retreats for chronic, 676.
sale of property by, 732.
self-defense against, 718.
settlement and receipt by, 788.
slander by, 784.
spendthrift, 673.
divorce of, 749.
stupor and epilepsy in evidence, 524, 1058, 1066.
suicide of, 763.
temporary insanity, 684, 716.
tendency of insane, 852.
testamentary capacity of, 360, 575, 737, 738, 739, 777, 779.
toleration, 618.
tramps, 639.
trance, 643.
crime in, 643.
troublesome, 32.
unreasonable contract of, 727.
vendor, rights of, 727.
wife, neglect of, 718.
will of insane, 778.
witness expelled from court, effect of, 796.
when objection to, 797.
woman, rape of, 718.
Alcoholics, asylum for, 678.
nationality of, 632.

Alcoholics—*continued.*
occupations of, 632.
phthisis among, 633.
sexes of, 632.
Alcoholism, 617. See also DRUNKENNESS; INTOXICATION.
absinthe drinking and, 798.
accidental death caused by, 405.
accident insurance, how affected by, 761, 762.
acts, conduct, and declarations as evidence, 789.
acute, 620.
a first symptom of insanity, 671.
after effects of, 727.
aggravating offense, 665, 686.
alimony in divorce for, 752.
as affecting contracts, 719.
conveyances, 7, 29.
cruel and inhuman treatment, 749.
executors and administrators, 756.
assumpsit affected by, 727.
burden of proof of, 776.
burglary and larceny in, 691.
cases of, 654.
caused by sickness, 708.
causes of, 633, 636, 648, 669, 677, 708, 1107.
causing accidental death, 405.
epilepsy, 1058.
insanity, mitigating offense, 715.
civil view of voluntary, 400.
mania, 959.
chronic, 622.
Cocculus indicus and, 798.
considered in verdict for damages, 784.
contracts affected by, 719, 724, 726, 727, 767, 779, 781.
conveyances affected by, 728, 728, 729, 731, 732, 733, 741, 745.
crime and, 84, 85, 682, 707.
crime of, 686.
criminal, culpable and inculpable, 663.
criminal law affected by, 682, 686, 704.
cure of, 636, 667, 677, 679.
damages, verdict affected by, 784.
Alcoholism—*continued.*
darnel seeds and, 798.
decisions as to homicide and, 693.
of court as to, 681.
defense for crime, 680, 689, 691, 717.
definitions of, 650.
destructive tendency in, 673.
disease of, 3, 619, 661, 676.
diseases of, 623, 628, 631.
divorce affected by, 211, 743, 748, 749, 751, 752, 553, 754.
divorce for, in Massachusetts, 755.
drugging mistaken for, 660.
epidemics and, 629.
evidence of, 575, 748, 775.
in breach of promise, 790.
excuse for crime, when, 682, 686, 707.
previous, 714.
fictitious, 660.
forgery and, 692.
fostered by law, 680.
spoils system in politics, 635, 638.
fraud combined with, 721, 724, 727.
general character and habits as evidence, 784.
gifts affected by, 740, 767, 781.
guardianship affected by, 422, 429, 757, 763.
head injuries and, 636, 652, 661, 665, 713, 715.
heart disease of, 631, 632.
heart weakness after, 628.
heredity and, 619, 634, 677, 844, 858, 877, 1121.
incompetency of administrator in, 757.
in criminal and civil cases, 679.
in descendants, 618.
induced by others, 725, 730.
inducing insanity, 709.
in insurance case, involuntary, 763.
inquisition as evidence of, 766.
insurance affected by, 757, 758, 761, 763, 778.
intent in, 664, 667, 674, 680, 688, 690, 691, 694, 697, 717, 781, 785, 793, 794.
involuntary, 707, 725, 730.

Alcoholism—*continued.*
in rebuttal of malice, 781.
in marine insurance, 789.
is insanity, decisions that, 680, 710.
is temporary insanity, 684.
is temporary unsoundness of mind, 779.
jailing to reform, 674.
legal adjudications as to, 681.
legal consequences of, 660.
legislative acts concerning, 678.
local statistics of, 632.
malice in, 127, 664, 667, 695, 697, 700, 708, 715, 717, 780, 781, 789.
marriage affected by, 741.
may be shown, when, 687.
may cause intent and act, 674.
measure of proof in, 780.
mitigates homicide, 686.
modifying syphilis, 628.
motive in, 673, 695, 700, 713, 715, 717.
negligence affected by, 676, 768, 775, 783, 786.
no excuse for crime, 661, 665, 685.
no mitigation, when, 784.
not a crime, 663.
not always apparent, 660.
not insensibility, 723.
not legal insanity, 685.
not relevant in Missouri, 691.
not unsoundness of mind, 684, 720, 764, 765.
offices and places of trust affected by, 755.
of guardian, 757.
of weak-minded, 691.
opinions in evidence as to, 791.
parliamentary inquiry concerning, 676.
pathology of, 623.
permanent insanity from, proof, 780.
pestilence of, 674.
poisoner affected by, 696.
post, 628.
predisposition to, 636.
premeditation affected by, 697, 708, 794.
presumption in, 488, 776.
prevention of, 674.
Alcoholism—*continued.*
previous and subsequent, 787.
proof of, 776, 781.
proof of voluntary, 782.
rape affected by, 718.
recovery from, 627.
reducing degree of crime, 686, 671, 690, 694, 704.
relations to head injury, 822, 827, 828.
relevant in evidence as to intent, 667.
remarks of trial judge on, 690.
resembling paretic dementia, 622.
trauma, 818.
right and wrong test in, 685, 686.
self-control in, 677.
statute of limitations affected by, 757.
susceptibility to, 672.
thefts after, 850.
to commit crime, 664, 665.
transitory frenzy mistaken for, 976.
traumatic paranoia and, 883.
treatment of, 678, 1198.
under Texas statutes, 715.
undue advantage in, 723, 739.
influence in, 723, 724, 727, 739.
volition of insane in, 671.
voluntary criminal, 661, 664, 665.
wilful, 661, 664, 665, 708.
will power in, 635, 638.
wills in, 349, 360, 575, 675, 733, 734, 735, 737, 738, 739, 768, 777, 778, 779, 789.
with insane tendencies, 708.
with paranoia, 1111.
with traumatic paranoia, 834.
witnesses and, 624, 795, 796, 797.
worry causing, 1107.
Alcoholphilia, 648.
Alexia, 1078, 1161.
Alibi after homicide, 94.
Alimony in divorce for alcoholism, 752.
Almanac as evidence, 1265.
Althouse on epileptic insanity, 1048.
Altitudes causing insanity, 1114.
Ambitious delusions, 50.
paranoia, 866.
Amenorrhœa in hysterical insanity, 1032.
American asylums, 1215, 1253.

American Crow-Bar Case, 65, 823.
Amimia, 1078, 1161.
Amnesia, 45, 1077.
Amnesic aphasia, 1071, 1161.
Amount of verdict, alcoholism considered in, 784.
Amuck, running, 976.
Anæsthesia, 59, 1163.
  erotic, effect of, 673, 1029.
  hypnotic, 107.
  of delirium grave, 1088.
Anarchists' trial, 93.
Ancestry of criminals, 85.
Anderson, W. C., on definitions, 10.
Andrews' training school for attendants, 1210.
Aneurism in brain, 53.
Anger and resentment no excuse, 127, 175.
  from head injury, 811.
  is not proof of insanity, 121.
  in epilepsy, 1050, 1060.
  in rheumatism and gout, 1075.
  of alcoholics, 622.
  of maniac, 957.
  of transitory frenzy, 976.
Anonymous letters in hysteria, 1028.
  letter-writing, 206.
Anstie on epilepsy, 1040.
Anticipatory heredity, 1121.
Antidote for opium poisoning, 1189.
Antifermentatives, 1181.
Antimony, 1189.
Antipathies and wills, 205.
Antisepsis, intestinal, 1181.
Apathy, 31, 72.
Aphasia, 232, 735, 1061–7, 1077, 1086.
Aphonia, 1022, 1079.
Apoplectiform paretic dementia, 1098.
Apoplexy affecting the mind, 1079.
  alcoholic, 621.
  and wills, 342.
  not presumptive of insanity, 485.
  testamentary capacity after, 1085.
  will of epileptic with, 1067.
Apparent sanity, 62, 66, 447, 665.
Appearance of insane, 57.
Appendix, scientific books and treatises as evidence, 1257.
Appetite, 58.
  in epilepsy, 1038.
  perverted in hysteria, 1022.
    pregnancy, 979.
Application of tests, time of, 162.
Appointments to asylums, 1232, 1233.
Apraxia, 1078, 1161.
Arcus senilis, 59.
Argument, reading books in, 1278.
Arm centers in brain, 1076.
Army rations, 1217.
Arson, 102, 133, 850, 1214.
  not proof of insanity, 416.
  unconscious alcoholic, 644.
Arteries in brain disease, 1161.
Artists among insane, 33.
Ascending paretic dementia, cases of, 1100, 1103.
Assault and battery, intoxication in, 703, 784.
  designed, 38.
  with intent to rape, 706.
Assaults, 102.
  alcoholic, 650, 703, 784.
  by aged, indecent, 915, 931.
  by circular insane, 1007.
  by epileptics, 1045, 1062, 1063.
  by maniac, 957.
  decision concerning drunken, 703.
  with intent to kill, intoxication as affecting, 703.
    effect of intoxication in, question for jury, 705.
    charge as to intoxication affecting, 705.
    drunken abuse of wife as evidence of, 715.
  with intent to rape, intoxication as affecting, 706.
  with intent to wound, intoxication as affecting, 706.
Assignment by insane, evidence in, 494.
Association of recollections, 47.
Assumed penitence, 86.
Assumpsit affected by alcoholism, 727.
Asthmatic attacks, 58, 1114.
Astrophobia, 845.
Asylum admissions, 1198.

Asylum..*continued.*
attendants, 1219.
classification of patients, 1194.
commitment not evidence, when, 192.
discharges from, 1199.
evidence of mental state in, 490.
maintenance, 1215.
removal of convict to, 192.
requirements, 1204.
statement while inmate of, 192.
supervision of, 1206.
treatment, 1168.
visitors, 37, 1200.
wardens and trustees, 635, 638.
Asylums, aggregate and segregate, 1204.
for criminal insane, 1205.
for incurables, 1204.
for inebriates, 678.
for insane criminals, 1204.
At and after trial, insanity, 192. See also INSANITY AFTER CRIME.
questions for determination, 195.
conclusiveness and effect, 197.
determination as to submission of issue, 194.
submission of issues in, 194.
insanity, how determined, 197.
after verdict, 199.
effect of recovery, 230.
question when and how raised, 193.
Ataxia from cocaine, 799.
Ataxic aphasia, 1079.
Atheism and testamentary capacity, 345.
Atheroma, 59.
Atheromatous insanity, 108.
of alcoholic, 629.
Atrocity of crime not evidence, 183; *contra*, 99, 826, 1047.
Savage on, 826.
Atropia causing delirium, 944.
causing frenzy, 1113.
causing mania, 634.
with morphine habit, 804.
Attempt at suicide by alcoholic, 707.
Attendants, asylum, 1219.
Attention, 47.
impaired power of, 1080.
in neurasthenia, loss of, 844.
Attesting witness, 600.
opinion of, 564.
to will of epileptic, 1068.
weight of testimony of, 320.
Attitudes of insane, 55, 1126, 1134.
At trial, insanity, 192.
Auditory defects, 1081.
memory, 1077.
Aura, epileptic, 1035, 1038, 1064.
Authors, insane, 843.
Automatic acts, 43.
Automatism, epileptic, 1040, 1052, 1062.
Auto-toxæmias, 1145.
Aversions. See also AFFECTIONS; PERVERTED.
during menstruation, 942.
in pregnancy, 979.
in puerperal insanity, 985.
Avoidance, modern rule of, 241.
old rule of, 241.
wills, contracts, deeds, 235.
Azam on somnambulism, 1053.

B

Bad education no excuse, 126.
Bad passion no excuse, 127.
Bail bond, insanity affecting, 193.
in homicide by alcoholic, 717.
Baillarger on insanity, 992, 1047.
Baker on pyromania, 851, 943.
Ball on insanity, 648, 846, 861, 944.
Bankruptcy affected by insanity, 402.
Barclay, imbecile homicide case, 118.
Barine on pathological literature, 843.
Barometer pressure, effect of, 1139.
Bathing, treatment by, 1190, 1236.
Bauduy on epileptic insanity, 1048, 1050.
Beaumont on atonic dyspepsia, 1152.
Bed sores, 58, 1098, 1189.
Bee stings causing melancholia, 1113.
Before commitment, insanity, 192.

Begin and conclude, defendant's right to, 459, 461.
Belief in spirits not insanity, 167.
in witchcraft, by testator, 360.
when sufficient to restrain, 445.
Belief of testator, strange, 360.
wills and speculative, 303.
Belladonna delirium, 944. See also ATROPIA.
effect of, 1113.
in cigarettes, 804.
Bellehomme on classification, 28.
Berger on obsessions, 845.
Bernheim on hypnotism, 106.
Bicycling, treatment by, 1121.
Birdsall, homicide case, 669.
Birth palsy idiocy, 876.
Bishop on responsibility, etc., 150.
Blackmail, hysterical, 1027.
Blackmailing relatives of insane, 1180.
Blackstone on drinking and *non compos*, 6, 639.
Bladder, lost control of, 1081.
Blakely's Will Case, 116.
Blaine, J. E., on alcoholism, 625.
Blandford on insanity, 884, 1047.
Bleeding, in treatment, 1189.
Blindness, word, 1077.
Blind Tom, the idiot savant, 876.
Blisters in treatment, 1188.
Blood in insanity, 1132.
poisoned, 1142.
pollution, 1155.
Boarding-out system, 1204.
Boils in paretic dementia, 1098.
in prognosis, 1188.
Bond, insanity affecting bail, 193.
made by drunkard, 785.
of medical superintendent, 1224.
Bone, brittleness, 58.
Bonet on treatment, 1132.
Books in evidence, 1, 109, 554, 605.
in insane asylums, 1213.
law, use of, as evidence, 1281.
scientific, use of, as evidence, 1257.
Boracic acid, 1189.
Borderland cases, 40.
Bouchard on auto-toxæmia, 1147.
Bowel control, loss of, 1081.
Brain, alcoholic, 633.
compression, concussion, and contusion, 809, 1139.
congestion, 1136.
deformities, 1156.
degradation, 1160.
delirium tremens, effect on, 631.
disease and suicide, 418.
disease and wills, 342, 357, 358.
disease, dementia from coarse, 1085.
disease, destructive, 1076.
disease of aged, organic, 909.
disease or lesion, legal effect of, 126.
in alcoholic dementia, 654.
in alcoholism, 626, 630.
in insanity, 1128.
injury and alcoholism, 715.
maldevelopment, 1130.
physiology, 1076.
surgery, 810, 1175.
tuberculosis, 1071.
wasting, chronic, 1087.
Bramwell, Byrom, on alcoholic paraplegia, 626.
Lord, on common-sense rulings, 115.
Brandy, idiosyncrasy, 634.
Breach of promise, 211.
by drunkard, 790.
senile case of, 931.
Bribery of juror by alcoholic, 789.
Brieger on auto-toxæmias, 1152.
Brierre de Boismont on paretic dementia, 821.
Bridgman, Laura, case of, 875, 878.
Bright's disease, will of alcoholics with, 735.
Bristowe on epileptic insanity, 1048.
British classification, 28.
statistics, 1104, 1122.
Brittle bones, 58.
Broken bones, 58.
Bromides, abuse of, 1196.
causing insanity, 1187.
debilitate, 634.
habit, 804.
in epilepsy, 1039, 1060, 1187, 1196.
Brougham on monomania, 233.

Braver's case of head-injury insanity, 839.
Browne, J. Crichton, on insanity, 114, 816, 1087.
Brown, W. A. F., on phrenology, 27.
Bucke, R. M., on responsibility, 119.
Bucknill and Tuke on insanity, 28, 803, 825, 971, 1049, 1050, 1051, 1053.
Burden of proof. See also PRESUMPTIONS.
affected by inquisition, 439.
and presumption, 449.
generally, 453.
generally as to alcoholism, 776.
in criminal cases, 455.
of capacity to marry, 455.
effect of inquisition on, 430, 439.
in personal injury cases, 778.
in will cases, 433, 459, 737.
in wills of alcoholics, 737.
of contract by alcoholic, 779.
of intoxication, 776.
of lucid intervals, 486.
Burdrarghi on homicide, 93.
Burglary, delusions concerning, 915.
hysterical charge of, 1030.
in alcoholism, 673, 691.
in insanity, 673.
larceny and alcoholism, 691.
Burlureaux on paretic dementia, 822.
Burnings in treatment, 1188.
Burton's anatomy of melancholy, 27.
Burman on paretic dementia, 831.
Busch homicide case, 834.
Business capacity, alcoholism and, 730, 756, 765, 766, 768.
atheromatous insanity and, 1088.
circular insanity and, 1003.
degrees of, 424.
delusion and, 208, 843.
epilepsy and, 1052, 1059.
evidence of, 342, 550, 564.
foolish acts and, 343.
guardianship and, 422.
head injury and, 812.
insanity and, 33, 218.
opium users, 799.
organic brain disease and, 1079.
paretic dementia and, 1095.
presumption of, 437.
restoration of, 441.
wills and, 284, 341.
Business done in alcoholic trance, 643.
incapacity with legal capacity, 440.
manager of asylum, 1206, 1223, 1227, 1229.
worry causing insanity, 1087.
Buying and selling by alcoholic, 768, 788.
by circular insane, 1001.
Byron as a degenerate, 844.

C

Cachexia, 58.
Calmeil on insanity, 817, 821, 822, 1139.
Calomel, 1183.
Campbell, J. A. on causes, 1132.
Cancer as degeneracy, 842.
in heredity, uterine, 858.
Cannabis Indica, delirium, 944.
habit, 804.
treatment with, 1186.
Capacity, 12. See also BUSINESS CAPACITY; RESPONSIBILITY.
act and wills, 279.
contractual, 242.
crime, commission, 154.
degrees of, 227, 241, 424.
business, 424.
civil, 241.
Capacity—*continued.*
delusion destroying testamentary, 298.
division of estate, 726.
epileptic, 1057.
estate, division of, as evidence, 726.
female consenting, 211.
immaterial, cause of loss of legal, 757.
insurance, suicide and understanding, 407.
legal and business, lack of, 440.
marriage, 382, 387.
opium user's, 799.
partial insanity affecting testamentary, 293.
physical, in conveyance, 730.

Capacity—*continued.*
presumption of, 776.
testamentary, 224, 273, 279, 282, 298, 326, 365, 448, 676, 733, 907.
to revoke will, 373.
trial, 196.
working, 31.
Carbolic acid, 1181, 1189.
Carbuncles in prognosis, 1188.
Care of patients, 34, 1166.
Carnot's assassin, 868.
Case, of Leavesdon, on treatment, 1187.
Cases, alcoholism and alcoholic insanity, 654.
circular insanity, 1006, 1011.
civil, 204.
criminal, 80.
damage, 221.
degeneracy, 890.
denying tests, 135.
embolism of the brain, 1086.
epilepsy and epileptic insanity, 1059.
feigned insanity, 73.
head injury, 829.
hypothetical, 111, 542.
infanticide, 985.
kleptomania, 848.
paranoia, 870.
paretic dementia, 1100.
periodical insanity, 1009.
senility and senile dementia, 928.
transitory frenzy, alleged, 976.
tremor causing dementia, 1086.
Casque neurasthenique, 844.
Castelreigh, hallucination of, 233.
Castration of insane, 939, 1173, 1175.
Catalepsy, hysterical, 1027.
katatonia, 990.
Categorical answers, 110.
Cathartics, 1183, 1189.
Causes, 1104.
of alcoholic addiction, 1107.
of alcoholic insanity, 638.
of alcoholism, 633, 636, 648, 669.
of confusional insanity, 970.
of epilepsy, 1039.
of idiocy, 876.
of imbecility, 879.
of insanity, 669, 1104.
Causes—*continued.*
of insanity, are immaterial in law, 757.
mistaken, 671.
proof of exciting, 188.
of mania, 959.
of melancholia, 967.
of morphine habit, 799.
of paretic dementia, 1099.
of senile dementia, 911.
of stuporous insanity, 969.
Causing insanity excuses, jealousy, 127.
insanity excuses, wrath, 127.
insanity, vices, 125.
Cautery in treatment, 1188.
Cerebral compression, 1139.
congestion, 1136.
neurasthenia, 844.
neurasthenia and wills, 234.
organic disease, 1076.
syphilis, 1090, 1155.
after head injury, 822.
Cérébraux, 813, 814, 842.
Certificates of lunacy in evidence, 531.
Certiorari where landowner intoxicated, 757.
Changeable delusions, 50.
Change of character or disposition, 33, 39, 187, 824, 1101.
affecting wills, 347.
as evidence, 417.
Character in insanity, 64.
not admissible in drunkenness, 785.
weight of, in evidence, 672.
Characteristics, proof of personal, 187.
Charcot on hypnotism, 105.
Charlatans treating the wealthy, 1126.
Charnel on simulation by the insane, 73.
Chattering mania, 37.
Checks signed by epileptics, 1052.
Chiarugi's reforms, 1248, 1254.
Childbirth, 979.
idiocy caused during, 819.
insanities attending, 979.
mental states in, 979.
Childhood, insanity in, 1116.
Children assaulted by senile dement, 931.

Children—*continued.*
as witnesses, 48.
irresponsible, 118.
precocity among, 1073.
pyromaniacal, 851, 943.
suicides of, 852.
Child test of insanity, 12.
Chinese punishment causing insanity, 1110.
Chitty on tests, 146.
Chloralamid, 1186.
Chloral habit, 804.
in treatment, 1185.
Chlorine for disinfecting, 1189.
Chlorodyne habit, 802.
Chloroform habit, 804.
habit not drunkenness, 807.
Choked disk in brain disease, 1081.
Cholesterine in brains, 1146.
Chorea caused by rheumatism, 1075.
with phthisical insanity, 1073.
Christian Science, 107, 1177.
Chronic alcoholic insanity, 648.
alcoholic insanity after abstinence, 631.
alcoholism, 622.
brain wasting, 1087.
insanity, presumption in, 477.
Cigarettes, adulterated, 804.
Cinchona tincture habit, 804.
Circle squarers as degenerates, 842, 870.
Circular insanity, 101, 992.
cases of, 1002, 1006, 1011.
from head injury, 819.
of degenerates, 864.
offenses against property, 207.
sexual exaltation, 100.
Circulation in epilepsy, 1039.
in insanity, 57, 60, 1132, 1138.
perverted, 1135.
Circumstances in evidence, surrounding, 513.
Civil action, statement to jury in, 241.
acts of paretic dements, 210.
and criminal accountability differ, 128.
and criminal cases, unequal laws on drunkenness in, 679.
Civil—*continued.*
and criminal responsibility compared, 128, 240.
cases, 204.
cases, legal adjudications in, 238.
cases, legal and equitable rules same, 241.
cases, legal consequences of alcoholism in, 675.
cases, measure of proof in, 475.
presumption in, 208.
rules applicable to, 240.
Civilization and insanity, 1118.
Civil responsibility of alcoholic, 768.
rights, 204.
service in asylums, 1255.
Classification of asylum patients, 100, 1194.
none in law, 29.
of criminals, 84.
of idiocy, 874, 876.
of insanity, 27.
Claustrophobia, 845.
Clavus in hysteria, 1022, 1137.
Climacteric accusations and confessions, 207.
aggressiveness, 95.
homicide during, 95.
impulse to steal, 848.
insanity, 935, 937.
letter writing in, 206.
statistics, 936.
kleptomania, 101, 850.
the, 935.
unduly influenced, 236.
with phthisis, 1073.
Clot in the brain, 1076.
Clouston on insanity, 28, 118, 205, 648, 803, 815, 825, 910, 911, 921, 936, 940, 981, 1051, 1074.
Cobb, W. R., on opium habit, 800.
Coca, 1188.
Cocaine habit, 804.
habit and insanity, 798.
user, will of, 807.
Cocainomania, 803.
Cocculus indicus and alcoholism, 798.
Codeine habit, 802.

Codicil made by apoplectic epileptic, 1067.
paralytic maniac, 1086.
Coffee harms some epileptics, 1056.
Cohen, S. S., on idiosyncrasies, 1143.
Coke, Lord, on insanity, 6, 679, 873.
Coleridge, C. J., on definitions, 6.
Coleridge, insanity of the author, 843.
Collateral heredity, 1120.
Colonies for epileptics, 1196.
Coma intervals, wills in, 953.
Combination of tests of insanity, 133.
Commission against epileptic, 1068.
Commitment, 217, 219, 443.
not evidence, when, 192.
of opium users, 802.
secured by criminal, 1250.
voluntary, 1199.
Committal, evidence before and after, 192.
Committee for habitual drunkard, 764.
Common-law defects, Courtney on, 81.
Common-sense answers, verdicts, etc., 27, 110, 111.
Competency of evidence, 489.
of jurors, 616.
of witnesses, 607.
Complexion in epilepsy, 1040.
Compositor, epileptic, 1053.
Compression of brain, 809, 1139.
Compromise verdicts, 100.
Concealed delusions, 69, 70.
insanity, 32, 69, 447.
Concealment after homicide, 94.
Concerted acts of insane, 38.
Conclusiveness of proof, 197.
of question, determination, 197.
Concussion of brain, 809.
Conduct, acts, and declarations of alcoholic, 789.
and acts in evidence, 508.
of others, proof of, 270.
proof of acts and, 184.
Confessions, false, 103, 207, 964, 1028.
in delirium tremens, 790.
in hysteria, 1028.
in melancholia, 964.
of a drunkard, by Charles Lamb, 637.
of alcoholic, 795, 797.
Confessions—*continued.*
of alcoholic, proof of, 790, 791, 795.
of epileptic dement, 445.
secured by drunkenness, 673.
weight of drunken, in evidence, 673.
Confinement, beliefs warranting, 445.
discharge from, 446.
general rules as to, 443.
Conformity to previous intentions in wills, 336, 952.
Confused thought, 38, 44.
Confusional insanity, 969, 1113, 1175, 1198.
Congenital idiocy, 875.
Congestion of brain, 1136.
Conium maculatum, 1189.
Conolly on insanity, 27, 70.
Consciousness, 43.
after head injury, 809.
double, 42, 44, 97, 644, 1053.
extinguished, 43.
impaired, 43.
in alcoholic trance, 643.
in homicidal impulse, 98.
in suicide, affecting insurance, 406.
perverted, 44.
Consent, alcoholic incapacity, to, 719
capacity for female, 211.
in drunken rape charge, 718.
of epileptic female, 201.
of imbecile female, 201.
of insane female, 201.
Conservation, 216. See also GUARDIANSHIP; INTERDICTION.
of alcoholic, 763, 767.
of epileptic, 1068.
of imbeciles, 217.
Conspiracy, delusions of, 50.
Constipation, 56, 72, 1038, 1145.
Consumption, 1071.
Contamination, fear of, 845.
Continuance, grounds for, 558.
Continuous insanity, presumption of, 477.
Contracts, alcoholism as affecting, 719.
alcoholism induced by others, 725, 730.
and conveyances; adjudications as evidence of, 272.

Contracts—*continued.*
and conveyances, age, disease, and weakness as evidence, 270.
and notes, evidence, 568.
and temporary insanity, 488.
and wills, capacity for, 283.
avoidance of, 235.
decisions concerning, 242.
during alcoholic trance, 643.
during voluntary intoxication, 721.
evidence in, contested, 491, 558, 568.
evidence of ability to make, 564.
for necessaries not voidable, 207.
fraud and incapacity, 247.
incapacity affecting, 242, 247, 257.
in lucid intervals, 767.
invalidation, 431.
marriage, 384.
of alcoholic, 643, 675, 719, 721, 724, 727, 764, 767, 781, 783, 785.
burden of proof in, 779.
decree for performance of, 723.
fraud in, 721.
fraud and undue influence in, 724.
of alcoholic imbecile, 726.
of alcoholic insane, 721, 727, 780.
of alcoholic, question for jury, 723.
unreasonable, 727.
of circular insane, 1001.
of epileptics, 1052, 1067.
of habitual drunkard, 764.
of imbeciles, 208, 726.
of insane, 207.
of mentally unsound and intemperate, 727.
partial insanity, affecting, 246.
presumption in, 480.
rescinding drunkard's, 724.
test of ability to make, 244.
voluntary drunkenness, 721.
what incapacity affects, 242.
when under guardian, 767.
Contributory negligence, 768, 783, 789, 790.
Controlling liquor laws, 676.
Control of appetite, nonexpert opinion on, 794.
Control, self. See WILL POWER.
Contusion of brain, 809.
Conveyances, alcoholism affecting, 728, 729, 731, 732, 733, 741, 745. See also DEEDS.
by epileptics, 210.
by insane, 209.
decisions concerning, 250.
effect of partial insanity on, 256.
fraud and capacity, 257.
nature of act as evidence of capacity, 265.
physical capacity for, 730.
tests, 252.
what insanity affects, 250.
Conviction, English rule against, 91.
insanity after, 93, 199.
Convict to asylum, removal of, 192.
Convulsions, 56, 1163.
after trial, epileptic, 1067.
epileptic, 1035.
feigned, 72, 74, 1021, 1058, 1063.
hysterical, 1021.
in paretic dementia, 1098.
of testator, 357.
puerperal, 983.
Co-ordination loss, 1081.
Coprolalia, 38, 847.
Corre on criminals, 85.
Correspondence of insane, 1200.
Counterfeit notes passed when drunk, 686.
Counter-irritation, 1188.
Counters, obsessed, 846.
Courtney, J. C., on common law, 81.
Cowper as a degenerate, 844.
Crane on degeneracy, 886.
Craniotomy, 874, 1170, 1176.
Craving alcohol, cause of, 1107.
Crazy, definition of, 8, 204.
Cretinism, treatment of, 878, 1190.
Crime against insane, 866.
atrocity not evidence of insanity, 183.
atrocity, Savage on, 826.
by alcoholic, 84, 85, 663, 674, 683, 686, 704.
measure of proof in, 780.
by opium user, evidence of, 801.
capacity to commit, 154.
drinking to commit, 664.

Crime—*continued.*
drunkenness no excuse for, 661, 665, 685.
during sleep, 1055.
epilepsy and, 1044, 1047, 1050, 1051, 1058.
epilepsy as defense for, 523, 1065, 1069.
excuse for, 125, 682, 805.
in alcoholic trance, 643.
in delirium tremens, 488.
in general, 80.
in hysteria, 1028.
in paranoia, 862.
insanity after, 92, 192.
insanity and, 111.
intent in drunkenness. See ALCOHOLISM, INTENT IN.
intoxication as excuse for, 617, 680, 682, 686, 689, 691, 707, 714.
intoxication, when shown, 687.
morphine overdose as excuse for, 805.
opium using as defense for, 523.
periodical insanity and, 486.
postponement of trial for, 192.
previous and subsequent intoxication in defense of, 787.
proof of nature of, 183.
reduction of degree of, 164, 671, 704, 716.
reduction of degree of, in alcoholism, 686, 671, 690, 694, 704.
sentence, invalid, of insane for, 192.
sexual, 100.
success, sobriety necessary to, 674, 1252.
trial invalid of insane for, 192.
voluntary drunkenness no excuse for, 665.
weak mind no excuse for, 126.
Criminal act itself, 68, 99, 183, 184, 495, 826, 1047.
Criminal and civil accountability differ, 3, 128.
Criminal and civil cases, drunkenness in, 679.
anthropology, 84.
Criminal cases, 80.
burden of proof in, 455.
conflicting rules in, 464.
Criminal cases—*continued.*
legal adjudications in, 124.
measure of proof in, 464.
preliminary inquest in, 198.
presumption in, 776.
rules in, 477, 479.
culpable and inculpable drunkenness, 663.
declarations and admissions, 498.
degeneracy, 857, 886.
drunkenness, acts, conduct, and declarations in, 789.
heredity, 85.
highest type of, 87, 88.
hypnotism, 107.
insane asylums for, 1204.
instigation, 104.
Criminal intent. See INTENT.
Criminality, 83.
Criminal law, alcoholism as affecting, 682.
Criminal love of revenge, 87.
physique, 85.
politicians, 86.
Criminal proceedings, letters and private writings in, 506.
Criminal prosecution, effect of guardianship on, 432.
evidence in, 489.
Criminal responsibility. See RESPONSIBILITY.
responsibility affecting suicide and insurance, 410.
effect of delusions on, 168.
test of, 165.
what insanity affects, 125, 126.
Criminals, asylums for insane, 1204.
Criminals classified, 84.
heads of, 85.
hospital for inebriate, 677.
imprudence of, 86.
intelligence of, 86.
lack of foresight of, 86.
perversity of, 86.
physical and mental condition of, 522.
remorse of, 86.
savage traits of, 87.
Criminal trial separate from inquest, 197.

Critical age of males, 935.
Cross-examination of experts, 554, 555.
  use of books on, 605, 1276.
Crothers on alcoholism, 625, 648.
Crow-Bar Case, American, 65, 823.
Cruelty of degenerates, 842.
  plea for divorce, 394, 749.
  to patients, 1254.
Cry, epileptic, 1035.
Cullon on classification, 27.
Cumulative heredity, 1120.
Curable insanities, 944.
Cures, apparent, 68, 69.
  of drunkenness, 677, 678, 679.
  of insanity, sudden, 1170.
Curtis on illegal commitment, 1251.

D

Dacy Case, 74.
Damage cases, 221.
Damage cases and alcoholism, 768.
Damage cases, symptoms in, 223.
Damages against saloonkeepers, 676, 772.
  alcoholism, relevant in, 719, 784.
  by fire through alcoholic negligence, 769.
  for alcoholic breach of promise, 790.
  for drunken assault, 784.
  for injury through drunken employee, exemplary, 786.
  insane not liable for punitive, 207.
Dana, C. L., on statistics of alcoholism, 632.
Darnel seeds as liquor adulterant, 798.
Darwin's intellect, 844.
Deaf mute, guardianship for, 425.
Deafness, hysterical, 1024.
  word, 1077.
Death by neglect of alcoholic, 763.
  caused by saloonkeeper, 772.
  disappearance as evidence of, 417.
  from accident, 43, 405.
  from accident of alcoholic insured, 762.
  from drug, liability for, 769.
  from exhaustion of insanity, 1133, 1169.
  from paretic dementia, 1098.
Death rates of insane, 1127.
Debility, 31.
  causing insanity, 1110.
Decisions of the court as to alcoholism, 681.
Declarations, acts, and conduct of alcoholic, 789.
Declarations and admissions of other interested persons, 502.
  admissibility of, 498.
  made in asylum, 152.
  of party, 498.
Declarations of plaintiff to expert, 223.
  to physician, 223.
  while inmate of asylum, 192.
Decorations for asylums, 1205.
Deed, avoidance, 235. See also Conveyances.
  contests, evidence in, 558.
  effect of inquisition on, 440.
  of aged alcoholic, 731.
  of alcoholic, 728, 729, 731, 733, 741, 757.
  of demented, 731.
  of epileptic, 1052, 1067.
  of feeble-minded alcoholic, 732.
  of trust by alcoholic, 733, 741.
Deeds. See also Conveyances.
  and wills in evidence, former, 496.
  effect of age and intoxication on, 731.
  in lucid intervals, 210.
  of alcoholic, feeble-minded, 732.
  of alcoholic secured by fraud, 733.
  of insane, 209.
Deegan, Peter, homicide case, 833.
Defamation by insane, 206.
Defective attention, 47.
  memory and responsibility, 187.
Defect not insanity, slight, 125.
Defects not insanity, physical, 427.
Defense, character and habits no, 785.
  epilepsy as a, 523, 1058, 1065, 1069.
  for slander, insanity a, 207.
  homicidal impulse as a, 171, 172.

Defense—*continued.*
insanity as a, 89.
moral mania as a, 172.
moral mania not a, 171.
of drunkenness, 680, 689, 691, 717.
of drunkenness, remarks of trial judge, 690.
overdose of morphine a complete, 805.
transitory insanity as a, 972, 977.
Definitions, 5, 164.
alcoholism, 650.
Anderson on, 10.
by experts on examination, 554.
difficulties of, 5.
Herbert Spencer on, 5.
of crazy, 8, 204.
degeneracy, 841.
delirium, 8.
delirium tremens, insurance, 762.
delusions, 49, 167, 855.
dementia, 8.
disposing mind, 9.
dotage, 8.
drunkenness, 650.
habitual drinker, 160.
habitual drunkard, 745, 764.
hallucinations, 8.
idiocy, 8, 9.
idiot, legal, 204.
imbecility, legal, 204.
imbecility, medical, 204.
insanity, 6, 7, 8, 9, 710, 856.
lucid intervals, 68, 242.
lunacy, 8, 445.
madness, 8.
malingerer, 222.
mental derangement, 8.
monomania, legal, 8, 164.
moral imbecility, novel, 1002.
moral insanity, 170, 204.
non compos mentis, 9, 383.
non-sane memory, 9.
partial insanity, 292.
senile dementia, 8.
sound mind, 9.
temperance, insurance, 758.
testamentary mind, 9.
torts, 206.
Definitions—*continued.*
unsound mind, 204, 383.
unsoundness of mind, 9.
weakness of mind, 9.
Deformities of degeneracy, 841.
of the brain, 1156
Degeneracy, 3, 69, 841.
cases of, 890.
criminal, 857.
definition of, 841.
physical, 841.
stigmata of, 857.
Degenerates, insanity of, 857.
with homicidal impulses, 2, 95.
Degeneration of brain, 1076.
Degradation of brain, 1160.
Degrees of capacity, 227.
civil, 241.
Degrees of crime, reduction of. See also CRIME; MITIGATION; REDUCTION.
insanity as affecting legal, 162, 163.
Delasiauve on insanity, 942, 1048, 1050.
Deliberation, 33, 103, 174, 712. See also DESIGN; INTENT; MOTIVE; MALICE; PLANNING; PREMEDITATION; REVENGE.
and premeditation, intoxication affecting, 697.
by alcoholic, 674.
drunkenness, relevant as to, 695.
in epilepsy, 1056, 1065.
in paretic dementia, 97.
Délire des actes, 996.
Delirium, 944.
after head injury, 810.
case of will made in, 949.
definition of, 8.
differs from mania, 947, 950.
during delivery, 981.
from poisons, 944.
from quinine, 1113.
grave, 1088.
homicide in, 96.
in phthisis, mistake as to, 1072.
not habitual insanity, 484.
of hysteria, 1028.
of organic brain disease, 1080.
of transitory frenzy, 976.

Delirium—*continued.*
rational interval in, 950.
Ray on, 945.
Delirium tremens, 640.
a defense, when, 780.
and insurance, 760, 762, 790.
an excuse for crime, 668, 710.
as excuse, previous, 714.
confession during, 790, 795.
contracts and, 721, 780.
crime in, 488.
deed in, 731.
definition of, 762.
effect on brain, 631.
evidence of, 780.
expert opinion on, 794.
fatality of, 632.
from opium, 803, 804.
homicide, 96, 641.
in insurance case, 762.
is insanity, 710.
McGlue case, 670.
marriage in, 742.
not continuous, 780.
on wills, effect of, 736, 737, 738.
premeditation in, 96.
presumption in, 487.
simulation of, 669.
suicide, 641, 738.
suicide and wills, 738.
treatment of, 1198.
will made in, 230, 487, 948, 950, 951.
Delusional insanity, 1162.
Delusions, 48.
absurdity of, 50.
ambitious, 50.
and business ability, 208.
and guardianship, 423.
and testamentary capacity, 158, 296, 348, 351.
and wills, 233, 298, 348, 351, 360.
and wills, test, 282.
as test of insanity, 15, 115, 129, 154, 157.
as to person affected, wills and, 301.
belief in spirits, 167.
in witchcraft, 360.
business capacity rebutting, 343.
changeable, 50.
Delusions—*continued.*
concealed, 69, 70.
concerning burglars, 915.
defined, and wills, 295.
definitions of, 16, 167, 855.
depressive, 50, 51.
effect on criminal responsibility, 168.
effect on testamentary capacity, 296.
erotic, 50, 673.
evidence of insanity, 129.
expansive, 50, 51.
expert opinion on, 586.
fixed, 50.
from cocaine, 799.
from opium, 800.
genuine, 50.
hypochondriacal, 50.
in homicidal insanity, 94.
in hysterical insanity, 1032.
in senile dementia, 915.
instances of, 15, 49, 117.
invalidating wills, 440.
kinds of, 50.
no test of insanity, 15, 49, 50.
not the only test, 204.
of alcoholic insane, 650, 651.
of attacks on property, 915.
of Chinese, 856.
of climacteric insanity, 938.
of conspiracy, 50.
of grandeur, 50, 824, 829, 863, 1096
of identity, 50.
of marital infidelity, 360, 650, 651, 655, 658, 829, 938, 1074.
of melancholia, 964.
of Messiahship, 866.
of paranoia, 99, 116.
of paretic dementia, 1096.
of Parsees, 856.
of persecution, 41, 50, 95, 863, 1028, 1073.
of poisoning, 50, 360, 829, 916, 1074.
of rape, 673.
of self-esteem in traumatic insanity, 824, 829.
of traumatic insanity, 824, 829.
of unfaithfulness, 170.
of unpardonable sin, 50.
of unworthiness, 50.

Delusions—*continued.*
of vendor, 727.
political, 50.
proof of, 358.
proof of delusions and partial insanity, 358.
religious delusions, 50. 303, 304, 305.
sane and insane, 16, 49, 855, 929.
speculative beliefs, 303.
spurious, 50.
suspicious, 50.
systematized, 50.
unsystematized, 50.
weight of, in evidence, 428.
Dementia, acute, 968.
after fever, 967.
alcoholic, 629, 654.
among tramps, 659.
deed made in, 781.
definition of, 8.
from coarse brain disease, 1085.
from head injury, 819, 823, 824, 830, 831.
from tumor, 1080.
is not imbecility, 4.
kleptomania, 850.
organic, 1086.
paretic, 1092.
pretense of, 72.
primary, 967, 1086, 1087.
pyromaniacal, 850.
recovery from, after operation, 832.
secondary, 1099.
senile, 911. See also SENILE DEMENTIA.
sequential, 1099.
senseless, words in, 1126.
syphilitic, 1091.
syphilitic paretic, 1092.
terminal, 1099.
traumatic, 819, 823, 824, 830, 831.
Denman, Lord, on right or wrong test, 147.
Dennis, F. O., on head injury, 823.
Dentists, accusations against, 59, 673, 1029, 1163.
Depletion, treatment by, 1189.
Depravity and insanity, 22.
not insanity, mental, 127.
Depression, 41.
after homicide, 98.
after illness not insanity, 127.
in circular insanity, 993.
Depressive delusions, 50, 51.
Deprivation, idiocy from, 875.
De Quincey, insanity of, 843.
on opium, 800.
Derangement, definition of mental, 8.
Derangements of speech, 1077.
Dercum on brain disease, 1080.
Descartes on intellect, 53.
Desertion by alcoholic, divorce for, 393, 754.
by alcoholic employee, 729.
of wife in evidence, 487.
Design, 33, 174. See also INTENT.
and malice in drunkenness, 664.
of drunken criminal, 793.
of lunatics, Ray on, 104.
Designed assault, 38.
Desires exaggerated in menstruation, 942.
Despine on criminals, 85.
Destructive brain diseases, 1076.
Destructive patients, 36, 855, 1193.
Detection of feigned insanity, 70.
Determination as to submission of issues, 194.
effect and conclusiveness of the, 197.
of insanity, existence, 178, 191, 415.
questions for, 195.
Determined, how insanity is, 197.
Determining responsibility, difficulty of, 152.
Developmental idiocy, 876.
Dexter, Timothy, case, 870.
Diagnosis, by experts, value of, 447.
difficulty of, in alcoholic insanity, 654.
of alcoholic insanity, 670.
of dipsomania, 660.
of epileptic insanity, 1057.
of homicidal impulse, 852.
of homicidal insanity, 98.
of insanity, 62, 222.
of post-febrile insanity, 967.
of self by insane person, 671.
of traumatic insanity, 829.
Diarrhœa, 56, 1100.

Diathesis, 1133.
Dickson on insanity, 1049, 1050, 1084.
Dietary in asylums, 1226.
Difficulty of determining responsibility, 152.
Digestion, 58.
Digitalis, 1187.
Diller on legal aspects of aphasia, 1080.
Dipsomania, 645. See also ALCOHOLISM.
  a mental disease legally, 160.
  as insanity, 671.
  diagnosis of, 660.
  in circular insanity, 998, 999.
  in periodical mania, 989.
  obsession of, 852.
  pseudo, 647.
  responsibility in, 685.
Direct heredity, 1120.
  of epilepsy, 1058, 1066.
Director of asylum, medical, 1206.
Disabilities, effect on wills of physical, 231.
Disappearances, 42.
  in proof of death, 417.
  of epileptics, 1053.
Discharge from asylums, 1159.
  from confinement, 446.
  in case of recovery, 446.
  is evidence of recovery, 447.
  of employee for intoxication, 728.
  of homicidal lunatic, 446.
  on habeas corpus, 445, 446.
  presumption from, 482.
  what evidence warrants, 446.
Disease affecting the mind temporarily, 484.
  age, weakness, proof of, 270.
  causing insanity, 483, 1109.
  fear of, 960.
  guardianship, 421.
  of drunkard, 674.
  of drunkenness, 661, 676.
  or lesion of brain, in law, 126.
  weakness, age, and wills, 275.
Diseases among insane, 1171, 1172.
  destructive brain, 1076.
  of old age, 905.
Disinfection, 1189.
Dislikes, melancholia, 96.
Disposing mind, 224. See also TESTAMENTARY CAPACITY.
  definition of, 9.
Disposition, change of, 187, 417.
  evidence of, 524.
  of property, unnatural, 227.
Dissimilar heredity, 1121.
Dissimulation by insane, 69, 70.
Disturbed patients, 86.
Diversion, 1191.
Diverting insane attacks, 88.
Division of estate of alcoholic, fraudulent, 727.
  unconscionable, 726.
Divisions of insanity, none in law, 29.
Divorce, alcoholism as affecting, 211, 655, 743, 748, 749, 755.
  and nymphomania, 393.
  cruelty, effect of drunkenness, 749, 752.
    plea for, 394.
  evidence of profanity in, 749, 751, 752, 753, 754.
  for alcoholism, alimony, 752.
  for desertion, effect of drunkenness, 393, 754.
  for false accusations, 752.
  for opium or morphine habit, 744, 748, 808.
  for wasting estate, 749, 753.
  insanity affecting action for, 391, 395.
  insanity affecting adultery, 392.
  insanity affecting desertion, 393.
  of alcoholic for adultery, 751.
  when adultery is a bar to, 748.
Dix, Dorothea, reforms of, 1243, 1251.
Dizziness, 59, 1081.
Doebling asylum, 858.
Doe, C. J., on no test, 24.
Doren school for idiots, 878.
Dormitories for epileptics, 1205.
Dotage, definition of, 8.
Double consciousness, 42, 44, 97, 644, 1053.
  existence, 42.
  heredity, 1120.
  memory, 48.
Doubt, beyond a reasonable, 464.

Doubt—*continued.*
in measure of proof, 471.
of responsibility in epilepsy, 1058, 1066, 1069.
of sanity of accused, 193.
of sanity of epileptic, 1057.
will not acquit, when reasonable, 781.
Doubting insanity, 845, 1158.
Down, J. L., on idiocy, 874.
Drawl of paretic dementia, 88.
Dreams, 48, 54, 1162.
Dress of patients, 84, 1196.
Drew Case, 665, 668.
Drink. See ALCOHOL.
Drinking. See ALCOHOLISM.
Drugged liquors, 661.
in evidence, 718.
Drug, liability for intoxication and death from, 769.
overdose as excuse for crime, 805.
stupor, will made in, 487.
using by aged, 908.
using in Massachusetts, divorce for, 808.
using, responsibility in, 685, 699.
Drugs given by physician, 761.
or opium, or intoxication by, 761.
undue effects of, 634.
Drunkard. See ALCOHOLIC.
Drunken. See ALCOHOLIC.
Drunkenness. See also ALCOHOLISM; INTOXICATION.
accident not converted into felony by, 686.
as a ground for divorce, 743.
as an aggravation of offense, 665, 686.
chloroform habit not, 807.
not unsoundness, 684, 720, 764, 765.
opium using is not, 808.
relevancy of, in homicide, 693.
weight of evidence of, 702.
without liquor, 660.
Duration of insanities, 1124.
of senile dementia, 923, 924.
Duret on head injury, 811, 817, 1142.
Durrant Case, 100, 854.
Dyspepsia and hypochondria, 959.
and mania, 954.
of melancholia, 963.

E

Ear disease, 814, 842, 858, 1060.
Ear, insane, 57, 957, 1092.
Eccentricity, 64.
and wills, 278, 344.
as degeneracy, 842.
evidence of, 524.
not insanity, 127, 188, 278, 279, 425, 427.
Eccheverria on epilepsy, 818, 1046, 1049, 1050.
Eclampsic idiocy, 875.
Ecstatic excitement, 40, 1027.
Edes on softening of the brain, 1083.
Education among homicidal insane, 94.
among patients, 32, 1117, 1191.
of idiots, 878.
or habits no excuse, bad, 126.
Effect and conclusiveness of determination, 197.
of inquisition with respect to parties, 438.
Effect—*continued.*
of insanity at and after trial, 192.
of recovery, legal, 200, 219.
of statements while inmate, 192.
Egotism, 40.
Eichorst on alcoholic neuritis, 626.
Electricity, hallucinations of, 54.
in treatment, 1179.
Electro-diagnosis, 223, 815.
Eldon on mind of aged, 12.
Elgin pervert case, 101, 1159.
Elimination, 1180.
Ellis on criminals, 86.
Emaciation, 58, 1098.
Embolism of brain, 1080, 1085, 1086.
Emmenagogues, 1189.
Emotional excitement, 40.
insanity, 96, 971.
insanity and epilepsy, 1058, 1065.
Emotionalism, 1118.

Emperors, insanity among, 858, 1246.
Employee, discharged for intoxication, 728.
negligence of drunken, 781.
Employment, 1192.
Enemas, 1183, 1186.
Enfeebled mind, advantage taken of, 726.
Enfeeblement causing insanity, 1110.
Clouston on mental, 205.
English asylums, 1215.
English licensing acts, 798.
statistics, 1104, 1122.
tests, 141.
trials of regicides, 867.
Entertainments for patients, 1191.
Enticed, imbecile females, 43.
Epidemics and alcoholism, 629.
Epilepsia cursiva, 1034.
larvata, 1040.
Epilepsy, 44, 1034, 1158.
affecting accident insurance, 413, 1068.
affecting memory, evidence of, 550.
affecting mind, 1058, 1065, 1066.
affecting sanity, in evidence, 586.
alcoholic, 627, 631, 644, 647, 652, 1058, 1066.
and dipsomania, 647.
and pyromania, 942.
as defense, 523, 524, 1065, 1066, 1067.
caused by absinthe, 798.
caused by worms, 1131.
causing alcoholism, 1058.
causing insanity, 1056.
deliberation in, 1053, 1065.
feigned, 70, 72, 73, 1057.
fleeting, 1049.
from abstinence, 652.
from head injury, 813, 817, 818, 822, 826, 831, 832, 838, 1065, 1066.
from head injury, as defense, 1065, 1066.
guardianship in, 422.
hereditary, in evidence, 1058, 1066.
homicidal, 94, 96, 100, 523, 826, 1034, 1065.
in evidence, causes of, 551.
in heredity, 858.
Epilepsy—*continued*.
legal adjudications as to, 1065.
legal effect of, 189.
major, 1034.
masked, 1040.
memory in, 1033.
mental, 1040.
morbid irritability of, 189.
nocturnal, 1049.
of witness, 610.
remissions in, 66.
simulated, 74.
tobacco aggravates, 1114.
unobserved, 1049, 1050.
wills and, 230, 350, 355, 357, 1067, 1068.
with periodical mania, 989.
Epileptic, ability to recognize, 106.
and apoplexy affecting wills, 1067.
assault, 1061.
character, 120.
consent of females, 201.
conservator for, 1068.
contracts of, 1067.
conveyances by, 210, 1067.
criminality, 1050.
dement, restraint of, 445.
direct heredity, 1058, 1066.
fit after trial, 1067.
hallucinations, 54.
homicidal impulse, 826, 1065.
homicide by, 523, 1047, 1065.
idiocy, 875.
impulses after head injury, 671.
insane, care of, 1196.
insanity, 1043, 1056.
and mania, 953.
from head injury, 818, 822, 831.
homicide, 523.
kleptomania, 101, 850.
mania, 1043.
may be legally insane, 1068, 1069.
moral insane, 970.
pyromania, 850.
rape, 100.
responsibility, 120, 1057.
sexual impulse, 100.
sleep derangements, 43, 65, 1053.
speech, 44.

Epileptic—*continued.*
stupor and drink in evidence, 524, 1058, 1066.
trickery, 120.
Epileptics as nurses, 84.
colonies for, 1196.
conspiracy of, 1046.
conveyances by, 210, 1052.
dormitories for, 1205.
Epileptiform paretic dementia, 1098.
Epileptoid states in menstruation, 942.
Epsom salts, 1184.
Equality and justice in wills, 330.
Equity and law rules similar, 241.
Ergot, 1187.
Erlangen on uræmic intoxication, 1145.
Erlenmeyer on insanity, 798, 1108.
Erotic and religious delusions, 1118.
delusions, 50, 674.
excitement in mania, 957.
hallucinations and delusions, 673.
hysterical insane, 1032.
propensities, 854.
senile dementia, 930, 931.
Eroticism and divorce, 393.
and wills, 349, 352.
in circular insanity, 999.
in pregnancy, 979.
Erotomania, 100, 177.
responsibility in, 177.
Errors in common law, 8.
of memory, 47, 48.
Erskine on delusion test, 15.
Erysipelas causing alcoholism, 636.
Escapes of insane criminals, 100.
of patients, 38, 95, 1214.
Esquirol on insanity, 27, 646, 816, 817, 874, 985, 1170, 1248.
Establish insanity, proof necessary to, 180.
Estates of alcoholics, 763, 765.
of alcoholics, fraudulent division of, 727.
unconscionable division of, 726.
Ether habit, 804.
Etiology, 1104.
Evacuants, 1132, 1183, 1189.
Evidence. See also ADMISSIONS AND CONFESSIONS; DECLARATIONS AND ADMISSIONS; PROOF.
abnormal strength as, 187.
accounts of testator as, 348.
act itself as, 183, 495, 552.
acts and declarations as, 184, 789.
asylum commitment when not, 192.
arson as, 416.
before conviction, 93.
books, use of, as, 554, 605, 1257.
causes of epilepsy and insanity, opinion, 551.
character, weight of, 672.
coherent letters as, 342.
competency and admissibility of, 489.
confinement in asylum as, 192.
declarations and admissions of other interested persons in, 502.
drunken abuse of wife as, 715.
drunkenness in, 689.
drunkenness in assault and battery, 784.
drunkenness in Missouri, 691.
drunkenness relevant as to intent in, 667.
exciting causes of insanity as, 188.
expert and opinion, 536.
hypothetical question in, 542.
illegible letters as, 346.
in alcoholic crime, preponderance of, 760.
in homicide, of drugged liquor, 718.
inquisition as, 191, 429, 437.
inquisition of habitual drunkenness as, 766.
in will, contract, and deed contests, 558.
letters and private writings in, 417, 418, 506.
medical, 107, 220, 536.
medical journal in, 554.
memory of testator as, 352, 525.
mental condition as, 522.
miserliness, wills, 345, 348, 360.
nature of act as, 183, 495.
of abuse of wife by alcoholic, 715.
of acts and conduct, 184, 267, 490, 508, 523.

Evidence—*continued.*
of adjudications and certificates of lunacy, 531.
of admissions and declarations in asylum, 192, 272.
of admissions of the party, 498.
of age and forgetfulness, 351, 352, 353.
of age, health and conduct, 524.
of alcoholic negligence, 760.
of change of conduct, 184, 347, 417.
of condition of criminal, 522.
of condition in asylum, 490.
of declarations of the party, 498.
of other persons, 270, 502.
of delirium tremens, 780.
of differences between testator and heir, 520.
of drunkenness on question of deliberation, 695.
of drunkenness, quantity and quality of liquor, 782.
of drunkenness, acts, conduct, and declarations, 789.
of drunkenness, character and habits, 784.
of drunken physician, 795.
of eccentricity, 524.
of effect of opium in criminal cases, 801.
of epilepsy, stupor and drink, 524, 1058, 1066.
of eyesight, 525.
of fact of intoxication, 781.
of former wills and deeds, 496.
of fraud in will, 236.
of general character for sobriety, 785.
of head injury, 188, 519, 524.
of health of testator as, 353.
of hereditary insanity, 526, 1066.
of hostility of testator, 520.
of incapacity of drunkard, 766.
of insanity, 448.
of insanity, atrocity of crime not, 183.
of insanity, before and after commitment, 192.
of insanity, epilepsy as, 189.
of insanity, contracts, 491, 558, 568.
Evidence—*continued.*
of insanity, delusion is, 129.
of insanity, previous and subsequent to act, 489.
of insanity, reputation and hearsay, 528.
of intemperate habits, 786.
of intoxication, 575, 691, 748, 775, 776, 789.
of intoxication of person killed, 718, 790.
of intoxication, opinions in, 791.
of intoxication, previous and subsequent, 787.
of justice and equality in wills, 330.
of lucid intervals, 242, 370, 478, 534, 535, 554, 780.
of nervousness of testator, 353.
of opinion founded on examination, 536.
of opium user, 800, 807.
of paralysis affecting mind, 526, 564, 1076.
of paralysis and alcoholism, 735.
of personal characteristics in crime, 187.
of physical condition, 353, 522.
of previous and subsequent condition of mind, 181, 481, 482, 483, 489.
of profanity in divorce case, 749, 750, 752, 753, 754.
of quality of liquor used, 782.
of quarrelsomeness of drunkard, 785, 788.
of recognition of friends by testator, 352.
of recovery, discharge is, 447.
of relationship of parties interested, 519.
of relatives, 829.
of removal of convict to asylum, 192.
of senile dementia, 575.
of sleep walking as a defense, 523.
of subsequent acts, 429.
of surrounding circumstances, 513.
of temperament, 524.
of temperament and disposition, 524.
of temperate habits, 183, 786, 790.

Evidence—*continued.*
of testamentary capacity, 826, 520.
of testator's condition, 522.
of the act itself, 183, 495.
of traumatic insanity, medical, 827.
of undue influence, 520, 521, 524.
of voluntary drunkenness, 782.
opinion, 342.
opinion based upon the, 539.
reputation of insanity as, 528.
reputation of drunkenness as, 786.
scientific books in, 1, 109, 554, 605.
to establish motive, 183.
to rebut inquisition, 439.
value of letters in, 592, 597, 615.
weight, in drunkenness as defense, 702.
weight of character, in, 672.
weight of delusions in, 428.
weight of drunken confessions in, 673.
weight of entries in, 343.
Exaggerated desires during menstruation, 942.
Exaltation and depression classification, 27.
of senses in mania, 38.
Examination of experts, 110, 554.
of prisoner during trial, 523.
Exceptions to general rule of nonexpert opinions, 563.
Exchange of land by alcoholic, 722.
Excitement as a favorable symptom, 39.
bathing treatment in, 1190.
hydrotherapy in, 1187.
in circular insanity, 996, 999.
in insanity, 36, 953.
no excuse, 127.
Exciting causes, 1134.
of insanity, proof of, 188.
Exercise of patients, 1214.
Excuse. See also RESPONSIBILITY.
anger and resentment no, 175.
anger no, 127, 175.
bad education no, 126.
bad passion no, 127.
excitement no, 127.
fear no, 127.
frenzy not insanity and no, 127.
Excuse—*continued.*
insanity as an, 125.
insanity need not be furious to, 127.
insanity, *per se*, no, 125.
intoxication as an, 682.
jealousy no, 127.
love of gain no, 127.
low intellect no, 126.
malice no, 127.
mischievousness no, 127.
of transitory frenzy, 974.
passion no, 127.
rage no, 127.
ungovernable passion no, 127.
unreasonable wrath no, 127.
weakness of mind no, 126.
Excuses, jealousy causing insanity, 127.
when partial insanity, 165.
wrath causing insanity, 127.
Execution, suspension of, 93.
Executors and administrators, insane, 218.
or administrators, alcoholic, 756, 757.
Exemplary damages for injury through drunken employee, 786.
Exhaustion of insanity, death from, 1133, 1169.
Existence of insanity, how determined, 178, 415.
Exophthalmic goitre in mania, 959.
Expansive delusions, 50, 51.
Expedients of juries, 100.
Expert and opinion evidence, 536. See also OPINIONS.
asked for definitions, 554.
cross-examination restricted, 554, 555.
declaration of plaintiff to, 224.
difference of opinion, 1.
errors, 74.
examination of, 110.
improper act of, 555.
improper question to, 556.
omniscience, 48.
Expert opinion, admissibility, 536.
based on evidence, 539.
founded on examination, 536.
on delirium tremens, 794.
on delusions, 586.
on epilepsy, 1069.

Expert opinion—*continued.*
on hypothetical questions, 542.
on kleptomania, 558.
on responsibility, 585.
partisan, 590.
reform, 108.
restriction of questions to, 554.
scope of opinion of, 550.
testing capacity of, 555.
testing knowledge of, 1.
use of books to sustain or discredit, 1274.
value of, 447.
weight of, 590.
Experts, 89, 90, 107, 220.
cross-examination of, 554.
examination of, 110, 554.
Experts—*continued.*
Grosscup on, 109.
qualification of, 546.
selection of, 109.
Wharton on, 89.
Expulsion from court of drunken witness, effect of, 796.
Extravagance, 217.
is not insanity, 188.
Eyelid, drooping of, 1081.
inability to close, 1081.
Eyesight, 59.
memory, loss of, 1077.
of testator, evidence of, 525.
Eyestrain, headaches from, 1112.
Eye treatment of insane, 1112, 1132, 1172, 1178.

F

Face center in brain, 1076.
in paretic dementia, 1098.
Faces, memory loss of, 1077.
Fact, contract of alcoholic a question of, 723.
for jury, existence of insanity, 178.
Facts as basis of opinion, 577.
Fainting in brain disease, 1081.
Faith cures, 107, 1177, 1179.
Falret on insanity, 116, 845, 992, 1047.
False accusations, 41, 102, 207, 942.
divorce for, 752.
in hysteria, 1029.
in melancholia, 964.
of alcoholic, 673.
of alcoholic insane, 650.
of circular insane, 1001.
False confessions, 41, 207.
in drunkenness, 673.
in hysteria, 1029.
in melancholia, 964.
False imprisonment, charge of, 1199.
memory, 47, 48.
Faraday's intellect, 844.
Farm labor as treatment, 1193.
Fasters, degenerate, 842.
hysterical, 870, 1027.
paranoia, 870.
Fatigue causing cerebral neurasthenia, 844.
Fear no excuse for crime, 127.
obsessions of, 845.
of contamination, 845.
of disease, 960.
of dogs, case of, 894.
of down of fruits, 845.
of fire, 845, 850.
of flowers, etc., 846.
of glass, 845.
of high places, 855.
of madness, 892.
of metals, 845.
of places, 845.
of pointed objects, 845.
of poisons, 845.
of riding, 855.
of spermatorrhœa, 961.
of syphilis, 961.
of thunder and lightning, 845.
of tuberculosis, case of, 894.
of virus, 845.
of waters and rivers, 845.
Fears during pregnancy, 979.
Febrile delirium, 944, 945.
Feeble-minded. See also DEMENTIA; IDIOT; IMBECILE; WEAK-MINDED.
alcoholic, deed of, 732.
Feeding, forced, 1182.
Feigned convulsions, 1021.

Feigned convulsions—*continued.*
epilepsy, 1053, 1058, 1068.
insanity, 70, 73.
insanity, after crime, 523.
insanity by the insane, 73.
insanity, cases of, 73, 74.
Felony, drunkenness does not convert accident into, 686.
Female, consent of insane, 201.
rape of insane, 201.
Féré on auto-toxæmia, 1147.
Ferruginous preparations, 1188.
Fever after head injury, 809.
in delirium grave, 1089.
Field, M. D., on simulation, 72.
Fillmore will case, 1086.
Filthiness and wills, 360.
Filthy habits and testamentary capacity, 344, 347.
habits of testator, 348.
language, 38.
impulse to, 847.
of hysterical insane, 1032.
patients, 34, 36.
Fire, fear of, 850.
setting, 850.
through negligence of alcoholic, 769.
Fistula healing causing insanity, 1111.
Fit after trial, epileptic, 1067.
Fixed delusions, 50.
Fixed ideas of cerebral neurasthenia, 844.
of obsessed, 855.
Flight after homicide, 94.
Flightiness raises no presumption, 485.
Flint on cholesterine, 1147.
Florid phthisis, 1074.
Flowers, fear of, 846, 855.
Flushed face, 56.
Folie à deaux, 865, 868, 869.
à double forme, 992.
circulaire, 992.
du doute, 845, 893, 1158, 1186.
gemellaire, 869.
par atherome, 1087.
Fontenoy on kleptomania, etc., 848, 859.
Food refusal by insane, 41.
Forced feeding, 1182.
Forensic considerations in circular insanity, 1000.
Forethought, 33.
Forgery, 102.
by alcoholic, 673, 692.
by insane, evidence of, 519.
Huntington case, 148.
Forgetfulness, 44, 1077. See also Memory Loss.
after head injury, 812.
and old age of testator, 352.
and wills, 351.
by testator, 353.
in senile dementia, 912, 922
of own name, 44.
Formad on alcoholic kidney, 625.
Former wills and deeds in evidence, 496.
Fort on psychical epilepsy, 885.
Fortner on opium insanity, 802.
Fournier on cerebral syphilis, 1090.
Fracture of skull, 809, 810.
Fraser case of sleep crime, 1055.
Fraud and intoxication, 724.
contracts and incapacity, 247.
conveyances and incapacity, 257.
Fraud, incapacity, and undue influence, 362.
in contracts by alcoholic, 721, 724.
in conveyances, 257.
in will, evidence of, 236.
French Code exculpation, 13, 14.
Frenzy not insanity and no excuse, 127.
of delirium grave, 1088.
Friedreich, 28, 1131.
Fruits, fear of down of, 845.
Fuller on craniotomy, 874.
Functional insanities, 944, 1154.
Funk, Otto, case, 101, 870.
Fürbringer on auto-toxæmia, 1153.
Furies of senile dements, 912.
Furious patients, 34.
to excuse, insanity need not be, 128.
Fury, 36.
of epilepsy, 1048, 1049, 1060.
of melancholia, 963.
of paretic dement, case of, 1102.
of senile dementia, 919.
of traumatic insanity, 824.

G

Gage, Phineas, case, 65, 823.
Gaiety of mania, 39.
Gain no excuse, love of, 127.
Gaits of insane, 56.
Gall on insanity, 2, 27.
Galloping paretic dementia, 1098.
Gaménomanie, 999.
Gamblers, 674, 842, 846, 1239, 1241, 1242.
Gangrene in paretic dementia, 1098.
Garafalo on stigmata, 857.
Garfield, killing of President, 866.
Garnier on insanity, 97, 928.
Gas causing insanity, 1113.
Gastritis in alcoholism, 1072.
Gavage, 1182.
Gehirnerweichung der Irren, 1083.
General character and habits as evidence of drunkenness, 784.
General derangement, sufficiency of proof of, 241.
General insanity, legal, 125.
Generally, to establish insanity, proof, 180.
General paralysis of insane, 3, 1092.
General rule as to nonexpert opinions, 557.
Generosity of insane, 40.
Genius and insanity, 843.
Genetous idiocy, 875.
Georget on imbeciles, 118, 880.
Gérard de Nerval, insanity of, 843.
Gesticulate, loss of ability to, 1078.
Gheel colony system, 1204.
Gibbs, Sir Vicary, on responsibility, 13.
Gifts, 375.
  alcoholism as affecting, 740.
  by insane, 235.
  in lucid intervals, 767.
  inter vivos, what insanity affects, 375.
  invalidation, 431.
  of alcoholic, effect of inquisition, 767.
  of a testamentary character, 376.
  undue influence in, 378.
Gilles de la Tourette's disease, 853.
Ginger tincture habit, 804.
Glass, fear of, 845.
Glauber salts, 1184.
Glucose in urine, 1146.
Glycosuria, 1146.
Goethe's intellect, 844.
Godding on Guiteau's case, 866.
Goodell on ovariotomy, 1174.
Goode on nocturnal epilepsy, 1049.
Goodkind's autopsy of brain embolism, 1086.
Gossip, hysterical, 1028.
Gout and rheumatism, 1075.
Gouty anger, 1075.
  insanity, 1075.
Gowers on epilepsy, etc., 231, 624, 811, 818, 1040, 1080.
Grand delusions, 50, 1096.
  in paranoia, 863.
  in paretic dementia, 1098.
Grandeur, delusions of, 50, 863, 1096, 1098.
Grandiose insanities, 1083.
Grand mal epilepsy, 1034, 1037.
Gratitude of insane, 39.
Gray on Fillmore will case, 1086.
Greding on peritoneal inflammation, 1132.
Greenleaf on responsibility, 150.
Green, Mrs., Case, 872.
Griesinger on insanity, 113, 803, 817, 993, 1050.
Grosscup on experts, 109.
Grössenwahnsinn, 1083.
Grounds for asylum patients, 1205.
Grübelsucht, 845.
Guardian, drunkenness of, 757.
Guardianship, 418. See also CONSERVATION; INTERDICTION.
  age, disease, weakness, as grounds for, 421,
  and criminal prosecution, 432.
  and judgment, effect of, 767.
  and restraint of alcoholic, 763.
  contracts when under, 767.
  effect of recovery on, 431, 441.
  for deaf mute, 425.
  in epilepsy, 422.

Guardianship—*continued.*
inquisition as evidence, 429.
inquisitions, nature, 418.
insanity, by whom determined, 426.
lucid intervals, effect on right to, 425, 426, 431.
motive for procuring, important, 429,
of habitual drunkard, 763.
periodical insanity, 423.
proof necessary to establish, 427.
tests of insanity, 423.
transactions by persons under, 767, 768.
what drunkenness warrants, 763.
Guardianship—*continued.*
what incapacity warrants, 419, 423, 429.
when superseded, 441.
wills made under, 768.
Guggenbuhl improving Cretins, 878.
Guiteau case, 99, 866.
delusions in, 15.
depravity and insanity, decision in, 22.
Gummata of brain, 1090.
Guslain on insanity, 1073, 1131.
Gustatory defects, 1081.
Gynæcology, 59, 1172.

H

Habeas corpus, 40, 221, 1199, 1250.
evidence for discharge on, 445, 446.
guardianship and inquest no bar to, 430.
of alcoholic insane, 652.
of circular insane, 1008, 1012.
sanity presumed on application for, 452.
Habits, drug using, 802.
not admissible in drunkenness, 785.
of intemperance in evidence, 786.
or education no excuse, bad, 126.
Habitual and temporary insanity distinguished, 484.
Habitual drinker in insurance case, definition of, 760.
Habitual drunkard defined, 745, 764.
contracts of, 764.
effect of engaging in business, 768.
guardianship of, 763.
hospital laws, 678.
retreats for, 676.
sale of property by, 768.
Habitual drunkenness a question for jury, 765.
as evidence, inquisition of, 766.
insanity from, 671.
Habitual insanity, presumption, 477.
Habituation, morphine, opium, cocaine, etc., 798.
Haig on auto-toxæmia, 1149.
Hair-clipping impulse, 854.
Hair, color of, 64.
in insanity, 58, 64.
Hale, Lord, on insanity, 2, 12, 118.
Halliburton on auto-toxæmia, 1152.
Hallucinations, 52, 1162.
after head injury, 818, 833.
after puerperal insanity, 233, 983.
and illusions of alcoholic insane, 651.
and illusions of melancholia, 965.
a special term, 4.
definition of, 8.
erotic, 673.
from absinthe, 798.
from cocaine, 799.
from opium, 800.
homicidal, 94.
in delirium tremens, 641.
in hysterical insanity, 1032.
in mania, 955.
in paretic dementia, 1098.
in phthisical insanity, 1074.
in rheumatic insanity, 1075.
Mitchell on traumatic, 55.
not insanity, 188.
of Dr. Sam Johnson, 233.
of Lord Castlereigh, 233.
of marital infidelity, 938.
of sane, 233, 833, 929.
of traumatic insanity, 829.
Hammond on insanity, 103, 618, 624, 802, 914, 917, 971, 1049, 1050, 1051, 1131.

Handwriting in epilepsy, 1052.
in old age, 972.
of insane, 59, 234. See also LETTERS.
Happiness of paretic dementia, 39.
Hard drinkers, descendants of, 618.
Hardwicke on mental unsoundness, 12.
Harrison of Chicago, killing of Mayor, 866.
Harshness in treatment, 1191.
Harvard tamping iron case, 65, 823.
Hasheesh habit, 804.
Haslam on insanity, 67, 70, 103.
Hastings Case, 73, 865.
Hatred, insane, 36. See also REVENGE.
Haut mal epilepsy, 1034, 1037.
Hayward Case, 106.
Headaches, 59.
brain disease, 1081.
cerebral syphilis, 1091.
epileptic, 1037.
eyestrain, 1112.
head injury, 1136.
hysterical, 1022, 1137.
neurasthenic, 844.
pretense of, 73.
Head injuries, 809.
and alcoholism, 652, 665, 713, 715.
Head injury as a defense, 519, 524.
as defense, epilepsy from, 1064.
cases, care of, 1198.
cases of, 829.
cause of insanity, 3.
causing alcoholism, 636, 677.
combined with alcoholism, responsibility, 713, 715.
Crow Bar Case, 65, 823.
damage cases, 221.
degeneracy, 842, 858.
epilepsy from, 1060, 1064.
hallucinations, 54.
homicidal, 95, 524.
impulses, 671.
in children, 945.
insanity not transmitted, 815.
insurance and, 404.
irresponsibility in, 712.
kleptomania in, 850.
legal effect of, 188.
Head injury—*continued*.
physician may testify to effect of alcohol after, 795.
quinine bad in, 1113.
suicide and insurance, 416.
susceptibility to liquor, 661.
unconscious acts after, 953.
wills after, 953.
Head shapes of degenerates, 841.
Heads of criminals, 85.
Health of testator, 353.
Hearing, 59.
memory, 1077.
Heart difficulties in brain disease, 1081.
weakness after alcoholism, 628.
Heart disease and insanity, 51, 1111, 1132.
Heat and cold, indifference to, 35.
causing mania, 959.
effect of. See SUNSTROKE.
on insane, influence of, 35. See also TEMPERATURE.
Hebephrenia, 939.
and undue influence, 236.
from head injury, 819.
treatment of, 1190.
Heinroth on classification, 28.
Hematoma causing epilepsy, 1062.
Hemianæsthesia of alcoholism, 624.
Hemiplegia and speech loss, 1076.
in brain disease, 1081.
mental effect of, 1085.
Hemorrhage causing insanity, 1110.
in brain, 1076.
in brain, affecting the mind, 1079.
in brain, dementia from, 1085.
Hereditary defect no defense, 781.
resemblance, influence of, 1125.
Hereditary insanity, 842.
and wills, 358.
in evidence, 526.
in instruction to jury, 712.
proof of, 190.
suicides, 852.
Heredity affecting insurance, 404.
alcoholism and, 619, 634, 677, 781, 877, 1121.
as causes, 1120.
cause of degeneracy, 842, 858.

Heredity—*continued.*
homologous and homochronous, 852.
in cerebral neurasthenia, 844.
in epilepsy, 1039, 1058, 1066.
influence of maternal, 1125.
in head injury cases, 815.
in homicidal impulse, 99.
in hypochondriasis, 960.
in phthisis, 1073.
in puerperal insanity, 988.
in senile dementia, 911.
of criminals, 85.
of idiocy, alcoholism in, 877.
predisposing to alcoholism, 634.
predisposing to homicide, 781.
Hernia causing insanity, 1111.
Herpetic insanity, 1131.
Heubner on vessels of brain, 1142.
Hidden delusions, 69, 70.
insanity, 69, 70.
Higher classes, insanity among, 858.
High places, fear of, 855.
Hill, Gardner, reforms of, 1547.
History of insane, 59.
insanity, 1244.
Hoffbauer on classification, 28.
Hoffmann's anodyne habit, 804.
Hoffmann, E. T. W., insanity of, 843.
Holmes, H. H., murder case, 88, 854.
Holtorff on hypochondria, 1132.
Homesickness, 41, 1108.
causing insanity, 1108.
Home treatment, 1171.
Homicidal degenerates, 97.
epilepsy, 96, 1046, 1050, 1057, 1059, 1063, 1064, 1065.
hysterical insanity, 97.
hysterical puberty, 1031.
idiots, 878.
impulse, 24, 97, 825, 852, 853, 893.
a defense, 172.
after head injury, 837.
epileptic, 1065.
from cocaine, 799.
in traumatic insanity, 825, 826.
not a defense, 171.
insanity, 97, 170, 1210.
katatonia, 97, 827, 991, 1011.
Homicidal—*continued.*
lunatic, discharge of, 446.
lunatics, statistics of, 94.
melancholia, 96.
nostalgia, 1109.
obsession, 99.
paranoia, 99, 863, 865.
paretic dementia, 97.
phthisical insanity, 1074.
sexual perversion, 100, 101.
Homicide, 93.
affecting accident insurance, 418.
affecting insurance, 404.
after head injury, 524, 837, 839.
Alex. Drew Case, 668.
and heredity, 781.
as affected by alcoholism, 698.
bail in alcoholic, 717.
by alcoholic, 650, 664, 672, 708.
burden of proof in, 776.
decisions concerning, 693.
insane, 657.
by degenerate, 833.
by epileptic, 523, 1047, 1065.
by epileptic insane, 523.
by imbeciles, Ray on, 118.
by insane, Savage on, 826.
by pubescent girls, 942, 1031.
by somnambulist, 523, 552, 1055.
drunkenness mitigates, 686.
relevancy in, 693.
excuses of paranoiacs for, 99.
for adultery, 519, 520.
from opium overdose, 805.
head injury as defense for, 519.
idiosyncrasies as to liquor in, 672.
in delirium, 96.
in delirium tremens, 96, 643, 670.
in drunken frenzy, 670.
in melancholia, 962.
in simple mania, 96.
in sleep states, 523, 552, 1055.
in transitory frenzy, 974.
memory after, 94.
of alcoholic, 658, 790.
of alcoholic person, 718.
of wife by alcoholic, 673.
or suicide, question of, 840.
suggested, 98, 104.

Homicide—*continued.*
unconscious alcoholic, 644.
under delusion, 170, 519.
voluntary intoxication to commit, 669.
Homochronous heredity, 852, 1120.
Homologous heredity, 852, 1121.
Hopefulness of phthisis, 39, 1071.
Horse stealing by drunkard, 782.
Hospital, commitment to, nature of, 443.
Hospitals for inebriates, 678.
medical staff for, 1171.
How determined, at and after trial, 197.
generally, insanity, 178.
Howe's, Laura Bridgman, Case, 875.
Howe, Dr. Delia, first asylum lady physician, 1255.
How raised, question when and, 193.
Hoy on brain compression, 1140.
Hufeland on abdominal disorders, 1131.
Hughes, C. H., on insanity, 115, 634.
Hull House Case, 929.
Hull on avoidance, 235.
Huntington Case, forgery, 148.
Huss, Magnus, on alcoholism, 624.
Huxley's intellect, 844.
Hyde, A. E. on alcoholism, 637.
Hydrargyri, unguentum, 1189.
Hydrocephalic idiocy, 875.
Hydrophobia, false, 1028.
Hydrotherapy, 1187, 1190.
Hygienic treatment, 1192.
Hyoscine, 1187.
Hyoscyamus, 1187.
delirium, 944.
Hypnotic homicides, 107.
Hypnotics, 1183.
Hypnotic suggestion, treatment by, 1192.
Hypnotism, 104.
criminal, 107.
Hypochondria, 959.
attention loss in, 1080.
cause of, 1112.
from *la grippe*, 1110.
not insanity, 127.
Hypochondriacal delusions, 50, 829.
melancholia, 961.
memory, 47.
Hypochondriasis, 960.
Hypomania, 956, 1135.
Hypothetical case, 111.
question on re-direct examination, 556.
opinion on, 542, 586, 587.
shape of, 585.
time for objection to, 556.
Hyslop on post-febrile insanity, 967.
Hysteria, 1020, 1130, 1147.
in heredity, 858.
letter written during, 206.
major and minor, 1025.
memory in, 1033.
mental, 1025.
with phthisical insanity, 1074.
Hysterical convulsions, 1021.
deafness, 1024.
divorce seeking by, 1031.
insanity, 1031.
and mania, 953.
homicidal, 97.
temporary, 1031.
paralysis, 1024.
speech loss, 1079.
state in menstruation, 942.
women dangerous, 1031.
Hystero-epilepsy, 1025, 1045.
Hysteroid convulsions, 1040.
Hyzer, E. M., on responsibility, 112.

I

Ideas of obsessed, fixed, 855.
Ideler on classification, 28.
Identity loss in epilepsy, 1053.
Idiocy, 872.
birth palsy, 876.
by deprivation, 875.
Idiocy—*continued.*
causes of, 876.
congenital, 875.
developmental, 876.
eclampsic, 875.
epileptic, 875.

Idiocy—*continued.*
genetous, 875.
hydrocephalic, 875.
inflammatory, 875.
Kalmuc, 876.
microcephalic, 875.
Mongol, 876.
paralytic, 875.
post-febrile, 876.
primary neurotic, 876.
recovery from, 1170.
scrofulous, 876.
syphilitic, 876.
test of, 208.
traumatic, 819, 875.
treatment of, 1190.
Idiosyncrasies, 1117, 1142.
against food, etc., 846, 855.
as to liquor, 672.
for drugs and liquors, 634.
Idiot, legal definition of, 204.
or imbecile, interdiction of, 590.
Idiotic malicious mischief, 877.
Idiots and imbeciles, thefts of, 850.
cannot contract marriage, 211.
homicides by, 95, 878.
infanticide by, 879.
Idiots, savants, 876.
Ignorance is not insanity, 188.
Ill-balanced degenerates, 842.
Illegal detention, 1250, 1251.
Illegal voting while drunk, 698.
Illiteracy is not insanity, 188.
Illusions, 52, 1161.
in hysteria, 1023.
in hysterical insanity, 1032,
in mania, 955.
of Abraham Lincoln, 233.
of alcoholic insane, 651.
of traumatic insanity, 829.
Imbeciles, consent of female, 201.
conservation of, 217.
contracts with, 208.
contract with alcoholic, 726.
homicide by, 95.
instruction for, 878.
kleptomaniac, 101.
offenses against property by, 206.
pyromaniac, 850.
Imbeciles—*continued.*
traumatic, 820, 838.
voting, 206.
wills of, 229.
Imbecility, 204, 879.
among tramps, 639.
and contracts, 208.
Georget on test of, 118.
in epilepsy, 1044.
legal definition of, 204.
medical definition of, 204.
moral, 970.
novel definition of moral, 1092.
treatment of, 1190.
Immediate heredity, 1120.
Immorality, in alcoholism, 677.
of paretic dementia, 1094.
pathological anatomy of, 630.
unconscious alcoholic, 644.
Impeaching witnesses in will contests, 565.
Impeachment, 206, 382.
for alcoholism, 755.
Imprisonment of drunkards useless, 676.
Improper influence, suspicion of, 235.
Impulse a defense, 172. See also IRRESISTIBLE IMPULSE; UNCONTROLLABLE IMPULSE.
after head injury, 671.
circular insanity, 978.
Impulse, climacteric, 936.
diagnosis of homicidal, 97.
epileptic homicidal, 1065.
erotic, 854.
expert evidence on irresistible, 586.
homicidal, 852, 893.
inherited, 852.
in moral mania, 171.
in traumatic insanity, 825.
irresistible or uncontrollable, 97, 99, 147, 170, 171, 172, 845.
kleptomaniac, 847.
not a defense, 171.
or obsession, 844.
pyromaniacal, 941.
suicidal, 852.
suicide, insurance and, 409.
to destroy, head injury, 838.

Impulse—*continued.*
to drink alcoholics, 852.
to fall from height, 855.
to filthy language, 847.
to steal, 847.
to strike, 853.
transitory frenzy, 974.
Impulsive monomania, 845.
Inability to dress, arise, etc., 855.
Incapacity. See also CAPACITY.
affecting contracts, 242, 247, 257.
and undue influence, 362.
burden of proof of, 776.
civil mental, 241.
fraud and contracts, 247.
fraud and conveyances, 257.
from morphine, 488.
in rape, 201.
need not be total, civil, 241.
of drunkard, evidence of, 766.
old age not presumptive of, 451, 452.
physical and mental weakness is not, 208.
physical infirmity and age not presumptive of, 451, 452.
to contract, alcoholic, 719.
what constitutes, 420.
Incendiarism, 133, 847, 942, 989, 1214. See also PYROMANIA.
Incitement to crime, 104.
Incoherence in circular insanity, 999.
in delirium grave, 1088.
in mania, 955.
of ideas, 1080.
Incoherency and wills, 351.
Inconsistency of law, Bucke on, 120.
Courtney on, 81.
Inco-ordination, 1081.
Inculpable, criminal, and culpable drunkenness, 663.
Incurables, asylums for, 1204, 1215.
Indecency, 644, 752, 955, 999, 1095.
[illegible] assaults of senile dements, 919.
[illegible]alties, 854.
[illegible], obsessions of, 845.
[illegible], 954, 959, 963.
[illegible]ane, 208.
[illegible] See ALCOHOLIC.
Infanticide by idiots, 879.
by pubescent girls, 942.
epileptic, 1064, 1065.
in delivery, 981.
in puerperal insanity, 985.
in transitory frenzy, 974, 976.
nostalgic, 1109.
Savage on, 99.
Infant or wild beast test, 128, 139.
Inflammation of brain, 1080.
dementia from, 1085.
Inflammatory idiocy, 875.
Influence, due, 235.
in paranoia, undue, 236.
suspicion of improper, 235.
undue. See UNDUE INFLUENCE.
Ingenuity, 94, 104.
Inherited. See HEREDITY.
Injury affecting responsibility, 164.
and negligence, personal, 768.
causing mania, 959.
legal effect of head, 188.
of brain, cases of, 1140.
of brain, dementia from, 1085.
of brain, effect of, 1076.
of brain, epilepsy from, 1066.
of head. See HEAD INJURY.
of patients, 1236.
to maniacs, self, 958.
Inmate, effect of statement of, 192.
Inquest, insanity, 219.
in criminal cases, preliminary, 193, 194.
in criminal trials, separate, 197.
omission to institute, 194.
test as to, 423.
Inquiry concerning drunkenness, parliamentary, 676.
Inquisition as evidence, 191, 429, 438, 531.
conclusiveness, 432.
effect of, with respect to parties, 438.
effect on contracts, 431.
effect on deeds, 440.
effect on gifts, 767.
effect on habeas corpus, 430.
effect on presumption of business capacity, 437.
effect on wills, 433, 440.

Inquisition—*continued.*
evidence to rebut, 439.
desertion as affecting, 487.
is evidence of lunacy, 430, 437.
nature of, 418.
of habitual drunkenness as evidence, 766.
over-reached acts, effect of, 434.
presumes business incapacity, 765.
shifts burden of proof, 430, 439.
subsequent effect of, 429.
when superseded, 441.
Insane alcoholic, mortgage of, 723.
appearance, 57.
authors, 843.
cannot contract marriage, 211.
contracts of alcoholic, 721.
criminals, asylums for, 1204.
criminals, escape of, 100.
delusions of sane, 855.
ear, 57.
ear in mania, 957.
ear, recovery after, 1092.
epileptic legally, 1068, 1069.
evidence of the, 195.
female, rape of, 201.
manner, 57.
motive, 103.
odor, 56.
poets, 843.
tendencies of drunkard, 708.
vendor, rights of, 727.
Insanity after crime, 92. See also AT AND AFTER TRIAL.
after verdict, 93, 199.
alcoholic, chronic, 649.
among kings, etc., 858, 1246.
among tramps, 639.
and crime, 111, 124.
and genius, 843.
and no excuse, frenzy not, 127.
anger as proof of, 121.
as affecting degree of crime, 162.
bankruptcy, 402.
mutual insurance, 414.
slander, 206, 207.
at and after trial, 192, 193, 194, 195, 197, 199, 200.
atheromatous, 1087.
Insanity—*continued.*
atrocity not evidence of, 183; *contra*, 99, 826, 1047.
caused by joy, 94.
quinine, 1113.
worms, 1131.
causes of, 1104.
chronic, 477.
chronic alcoholic, 648.
climacteric, 935.
concealed, 447.
continuous, 477.
curable, 944.
defined, legally, 7, 710.
moral, 170.
definition of, 7, 856.
degrees of legal, 163.
delusional, 1162.
delusion, evidence of, 129.
depression after illness is not, 127.
determined by court, 121.
eccentricity is not, 127, 188, 427.
excuses, jealousy causing, 127.
excuses, wrath causing, 127.
existence of, how determined, 178, 415.
extravagance is not, 188.
frenzy not, 127.
from alcoholism, 671, 696, 709, 710.
from drugs, 798.
from habitual drunkenness, 671.
from head injury, 798, 810.
from injury, legal, 165.
from opium, morphine, etc., 798, 802.
from quinine, 833.
from sunstroke and fall, legal, 164.
functional, 944, 1154.
gouty, 1075.
grandiose, 1088.
habitual, 477.
hallucination not, 188.
herpetic, 1131.
homicidal, 170.
hypochondria is not, 127.
hysterical, 1031.
ignorance is not, 188.
illiteracy is not, 188.
immaterial, cause of, 757.
individually tested, 844.

Insanity—*continued.*
in equity and law similar, 241.
in evidence, hereditary, 526, 844.
inferred from nature of will, 952.
in pregnancy, 979.
inquest, 219.
in criminal trials, 193.
separate in criminal trials, 197.
intoxication is not legal, 685.
is sickness legally, 414.
judgments, effect on, 401.
judicial determination of, 191.
Kerlin's juvenile, 970.
latent, 188.
legal general, 125.
malarial, 989, 1113.
masturbatory, 938.
medical and legal difference, 125.
memory impairment is not, 421.
mental depravity not, 127.
mixed, 1112.
moral and emotional, 970.
must relate to act in question, 241.
need not be furious to excuse, 128.
no test of, 135.
oddity is not, 127.
of degenerates, 857.
of twins, 869.
old age is not, 427.
old maid's, 936.
ovarian, 936.
paralytic, 1092.
partial, 116, 138, 164, 205, 246, 256, 292, 293.
partnership affected by, 379.
passion is not, 188.
peculiarity is not, 427, 474.
pellagrous, 1113.
periodical, 988.
per se, no excuse, 125.
personal injury resulting in, 221.
phthisical, 1072.
plea of, 208.
plea, subterfuge, 121.
political, 1119.
post-connubial, 967.
post-febrile, 967.
post-paralytic, 1086.
presumption in civil cases, 208.
Insanity—*continued.*
previous, 481, 482, 483.
previous and subsequent, 181.
prisoner objecting to plea of, 181.
proof of exciting causes of, 188.
hereditary, 190.
in insurance, 416.
to establish, 180.
public officers, 382.
puerperal, 983.
punished in 1744, 662.
question, by whom determined for guardianship, 426.
reflex, 1112, 1132.
religious, 303, 1119.
remittent and intermittent, 989.
responsibility in, 112, 125.
rheumatic, 1075.
self-recognized, 1087.
senile, 910.
slight defect not, 125.
stuporous, 968.
submission of issues in, 194.
suspicion is not, 188.
sympathetic, 1131.
temporary, 482.
and recurrent, 177.
hysterical, 1031.
traumatic, 823.
unrecognized, 211.
vices causing, 125.
wills in intermittent, 230.
Insensibility, alcoholism not, 723.
Insolation, effect of, 813.
Insomnia, 222. See also SLEEPLESSNESS.
Instigation to crime, 104, 133.
while drunk, 707.
Instinctive monomania, 971.
Instruction of idiots, 878, 879.
Insurance, suicide affecting accident, 413.
action, challenge of juror in, 616.
affected by head injury, suicide, 416.
See also ACCIDENT INSURANCE.
affected by insanity, 403.
affected by insanity, heredity, 404.
alcoholic dying from neglect, 763.

Insurance—*continued.*
alcoholism as affecting, 757, 758, 778, 793, 794.
and delirium tremens, 790.
capacity to understand act of suicide in, 407.
case, evidence in, 493.
change of character as evidence in, 417.
death by accident, 405, 762.
existence of insanity, how determined, 415.
habitual drinker defined, 760.
homicide by insane act affecting, 404.
insanity as a breach of warranty, 403.
as affecting mutual, 414.
intoxication by use of drugs, 761.
loss through drunkenness in marine, 789.
mutual, expulsion for drunkenness, 761.
mutual, insanity is sickness, 414.
of epileptic, accident, 1068.
of paretic dement, case of, 1100.
on paretic dements, life, 1096.
proof of insanity in suicide affecting, 410.
stipulation against suicide in, 410.
suicide affecting, 404, 405, 406.
and melancholia, 553.
clause in life, 211.
from irresistible impulse, 409.
test of consciousness and intent to commit suicide, 406.
criminal responsibility, 410.
warranty against opium, 807.
Insured, evidence of suicide of, 560.
Intellect in homicidal impulse, 98.
in organic brain disease, 1079.
is indivisible, 117.
not insanity, low, 126.
Intemperance in evidence, 598. See also ALCOHOLISM.
of testator, 338.
presumption in insanity from, 487.
Intemperate. See ALCOHOLIC.
Intent. See also DELIBERATION; DESIGN; MALICE; MOTIVE; PLANNING; PREMEDITATION; REVENGE.
Intent—*continued.*
and alcoholism, 664, 667, 674, 680, 688, 690, 691, 694, 697, 717, 781, 785, 793, 794.
and purpose, capacity for criminal, 126.
criminal, 148, 680.
drunkenness may destroy, 704.
relevant as to, 667, 689, 695, 717, 785.
and abuse of wife as evidence of, 715.
of testator, 365.
suicide affecting insurance and, 406.
to bribe by alcoholic, 789.
to commit suicide, declaration of, 417.
too drunk to entertain, 688.
to rape, assault with, 706.
Interdiction, 204, 217. See also CONSERVATION; GUARDIANSHIP.
of alcoholic, 763.
of idiot or imbecile, 590.
Intermittent insanity, 989.
wills in, 230.
Interparoxysmal mental state in epilepsy, 1044.
Interruptions by prisoner, 91, 92.
Intervals of epilepsy, 1039.
wills in epileptic, 1068.
lucid, 230.
Intestinal antisepsis, 1181.
Intoxicants and narcotics used by testator, 354.
Intoxicated. See ALCOHOLIC.
Intoxication. See also ALCOHOLISM; DRUNKENNESS.
and death from drug, liability for, 769.
as an excuse for attempted suicide, 707.
combined with fraud and undue influence, 726.
effect on admissions and declarations, 790.
effect on counterfeiting, 686.
effect on homicide by poison, 696.
effect on right to bail, 717.
from drugs or opium, 761.
illegal voting during, 693.

Intoxication—*continued.*
marriage during, 643.
opinions as to, 792.
proof of part of, 781.
Inventions in mania, useful, 1135.
Investigations of asylums, 1211, 1234, 1238, 1249.
Involuntary drunkenness, effect on responsibility, 707.
intoxication in insurance case, 763.
Iodide of potassium, undue effects of, 634.
Irascibility of testator, 338.
Ireland W. W., on insanity, 121, 819, 858, 874, 1073, 1246.
Iron, preparations of, 1184, 1188.
Irresistible impulse, 97, 147, 170. See also IMPULSE; UNCONTROLLABLE IMPULSE.
expert opinion in evidence, 586.
suicide and insurance, 409.
tendencies, obsessions of, 845.
Irritability from cocaine, 799.
from head injury, 811.
in epilepsy, 1052.
in rheumatism and gout, 1075.
in traumatic insanity, 829.
of epilepsy, morbid, 189.
Irvine Case. 977.
Isolation, 204.
Itching causing insanity, 1110.

J

Jackson, General, assault on, 117.
Jackson Hughlings, on epilepsy, 1040.
Jack the Clipper, 854.
Jack the Ripper, 96, 100, 854, 1056.
Jacobi, Max, on insanity, 28, 1167.
G. W., on somnambulism, 1054.
Jailing drunkards useless, 674, 677.
Jastrow on hypnotism, 107.
Jealous delusions in melancholia, 965.
Jealousy. See also DELUSIONS OF MARITAL INFIDELITY.
alcoholic, 1104.
among reformers, 1249.
causing insanity, excuses, 127.
homicidal, 97, 101, 1104.
in climacteric insanity, 838.
no excuse, 127.
not insanity, 425.
of testator, 361.
Jenson Case, 802.
Joan of Arc, hallucinations of, 1162.
Johnson, Dr. Sam., hallucinations of, 233.
Joy destroying reason, 94.
Judgment affected by insanity, 401.
Judgment against person under guardian, 767.
by insane, confession of, 402.
in amnesia, 1077.
suspension of, 93.
Judicial proof of insanity, 191.
Jumpers of Maine, The, 853.
Jurors and witnesses, 607.
competency of, 616.
Jury, examination of, 616.
expedients, 100, 120.
in civil action, statement to, 241.
reading books to, 1257.
Justice and equality in wills, 330.
Juvenile insanity of Kerlin, 970.

K

Kahlbaum on insanity, 940, 990.
Kalmuc idiocy, 876.
Katatonia, 989, 1010, 1075, 1114, 1198.
from head injury, 819.
homicidal, 97, 827.
Kelwyn's intellect, 844.
Kent, Chancellor, on old age, 907.
Kerlin school for idiots, 878.
Kerr, Norman, on alcoholism, 625.
Killing of intoxicated person, 718.
Kindness in treatment, 36, 1191.
Kings, insanity among, 858, 1246.

Kirchoff on senile dementia, 922.
Kleptomania, 101, 847, 848, 998, 999, 1041. See also LARCENY.
  expert opinion on, 558.
  legal responsibility, 133, 177.
  nonexpert opinion on, 558.
Knee jerk after head injury, 813.
Knowledge, capacity, and intent of testator, 364.
Knowledge of nature of act, test of, 132.
Knowledge—*continued.*
  of right and wrong test not applicable, 196.
  which will warrant an opinion as witness, 573.
Kola, 1188.
Krafft-Ebing on insanity, 100, 116, 816, 818, 868, 940.
Krauss on epileptic homicide, 1057.
Kussmaul on speech loss, 1080.

L

Laborde on absinthe, 708.
Labor for insane, 1192.
Lacassagne on criminals, 85.
  on stigmata, 857.
Laches of drunkard, 757.
Lactation, 979.
Lactational insanity, 987.
La grippe causing alcoholism, 648.
  insanity, 1110, 1133.
Lallier on diabetes, 1146.
Lalor on schools for insane, 1192.
Lamb, Charles, as a degenerate, 844.
  confessions of a drunkard, 637.
Land exchange by alcoholic, 722.
Language and intellect relation, 37.
  filthy, 38.
  of hysterical insane, filthy, 1032.
  pathological, 1126.
Lannelongue on craniotomy, 874.
Lapses of memory in traumatic insanity, 825.
Larceny, 101, 133, 177, 847, 900. See also KLEPTOMANIA.
  burglary and alcoholism, 691.
  by circular insane, 1001.
  by dipsomaniac, 647, 657.
  by epileptic, 1057, 1063, 1065, 1067.
  by imbeciles, 881.
  by opium user, 799, 801, 805.
  by paranoiac, 871.
  epilepsy as defense for, 1065, 1067.
  in fun while drunk, 684.
  in paretic dementia, 1094.
  in periodical mania, 989.
  unconscious alcoholic, 644.
Large asylums pernicious, 1205.
Laros case of epileptic insanity, 1047.
Larrousine on concealed insanity, 69.
Larvated epilepsy, 1040, 1045, 1059.
Lasegue on head injury, 813, 814, 817.
Latent insanity, legal, 188.
Laudanum habit, 802. See also MORPHINE; OPIUM.
  overdose in insurance case, 405, 768.
  used by witness, 614, 807.
Lavage, 1182.
Lavaure on auto-toxæmia, 1146.
Law, conservatism of the, 1.
  definition of the, 80.
  fosters drunkenness, 680.
Lawrence case, delusion in, 117.
  Jackson, assault, 117.
Lawson head injury case, 1140.
  on Levitt's case, 117.
Laws supervising and controlling liquors, 676.
  to check drunkenness, inadequate, 676.
Lawyers as witnesses, 47.
Lay. See also NONEXPERT OPINION.
  control of asylums, 1206.
  opinion in insanity cases, 118.
Laycock on classification, 27.
Lead causing insanity, 1113.
  plaster, 1189.
  poisoning, treatment of insanity from, 1198.
Lease of alcoholic, fraudulent, 727.
Lecches, 1189.
Left handed, speech center of, 1076.

Left sided paralysis, mind in, 1076.
Legal adjudications as to alcoholism, 681.
as to epilepsy, 1065.
in civil cases, 238.
in criminal cases, 124.
Legal and medical insanity, 125.
capacity immaterial, cause of loss of, 757.
consequences of alcoholism, 660, 675.
control of alcoholic necessary, 677.
definition. See DEFINITIONS.
of insanity, 7.
of monomania, 8, 164.
effect of epilepsy, 187.
of sunstroke or fall, 164, 188.
view of drunkenness as insanity, 679.
Leg center in brain, 1076.
Legrain on absinthe, 798.
Legrand du Saulle on insanity, 103, 115, 646, 647, 827, 868, 1050, 1131.
Leonard, Marian, Case, 868.
Lesion or disease of brain, legal, 126.
Letters and private writings in evidence, 506. See also HANDWRITING; WRITING.
as evidence, coherent, 342.
by asylum patients, 1200.
in evidence, illegible, 346.
value of, 592, 597, 615.
of alcoholic insane, 652.
of hysterical, 1028, 1030.
of insane in evidence, 417, 418. See also HANDWRITING.
of paretic dementia, 1096.
written in melancholia, 965.
Letter writing, anonymous, 206.
breaks in atheromatous insanity, 1088.
by insane, 64, 65, 70, 234.
from cocaine, confused, 799.
in old age, 908.
in senile dementia, 927.
of insane, libelous, 60, 1101.
Levett's case on delusion as excuse, 117.
Lewis, Bevan, on insanity, 72, 912, 980, 985.
Liability for death from drug, 769.
Libel, 206, 1027, 1028.
Libelous circular insanity, 1001.
hysteria, 1027, 1028.
letters, 60, 1097, 1101.
Library, asylum, 1213.
Lice, preventing, 1189.
Liébault on hypnotism, 106.
Life insurance. See also INSURANCE.
in paretic dementia, 1096.
quantity of liquor in, 783.
suicide clause in, 211.
Life tables, use of, as evidence, 1258.
Lightning and thunder, fear of, 845.
stroke, effect of, 813.
Light on insane, influence of, 35.
Likes and dislikes of insane, 36.
Limitations. See STATUTE OF LIMITATIONS.
Lincoln, illusions of, 233.
Lingg Case, 93.
Liquor in evidence, drugged, 718.
Liquor laws, supervisory, 676.
Liquors drugged, 661.
Lispenard Case, 881.
Lithia, 1184.
Litigious insane, 40, 207, 868.
Lobdell's emergency promptness, 1208.
Local statistics of alcoholism, 632.
Locomotor ataxia, 1090.
Loewey on insanity, 1086, 1098, 1159, 1186.
Loftus head-injury case, 1140.
Loiseau on insanity, 1132.
Lombroso on criminals, 85, 857.
Loss of memories, 45, 1071, 1077, 1161.
Loss of will power. See WILL POWER.
Love of gain no excuse, 127.
Low intellect no excuse, 126.
Lucid insanity, 845.
intervals, 66, 241, 434.
acts binding during, 241.
and delirium, 950.
and guardianship, 425, 426.
and moon changes, 6, 34.
Blackstone on, 6.
burden of proof, 486.
deeds in, 210.
defined, 68, 242.

Lucid intervals—*continued.*
evidence of, 242, 370, 478, 534, 535, 554, 780.
gifts in, 767.
Haslam on, 67.
in circular insanity, 1000, 1004.
in guardianship, 431.
in paretic dementia, apparent, 1097.
in traumatic insanity, 825.
marriage in, 742.
necessary, when proof of, 780.
of alcoholic insane, 767.
periodical, 989.
presumption of continuance of a, 488.
probabilities of, 950.
proof of, 370, 478.
responsibility in, 122.
Thurlow on, 67.
wills in, 67, 230, 482, 483, 487, 489.
Lucid intervals—*continued.*
Wynne on, 67.
Lucidity after melancholia, 966.
Lunacy a synonym for insanity, 7.
legal definitions of, 7, 8, 80.
old distinction from insanity, 6.
Lunatic, Blackstone on, 6.
cannot contract marriage, 211.
contracts of, 207.
defined in English statute, 445.
in English law, 205.
legal definition of, 7, 8.
origin of word, 34.
testimony of, 611.
Lying, hysterical, 1027, 1032.
Lying in, 979.
Lying of hysterical insane, 1032.
Lynching spirit in trials, 89.
Lyndhurst, Lord, on tests, 21.
Lyssaphobia, 1028.

M

Macdonald on insanity, 1216, 1250.
Mad dog principle, 122.
Madness defined, 8.
Magnan on insanity, 232, 626, 633, 646, 650, 798, 842, 856, 861, 1050.
Maintenance, asylum, 1215.
Major epilepsy, 1034.
Majors' alcoholic insanity statistics, 638.
Maladie du doute, 845. See FOLIE DU DOUTE.
Malarial insanity, 989, 1113.
Mal-development of brains, 1130.
Malice. See also DELIBERATION; DESIGN; INTENT; MOTIVE; PLANNING; PREMEDITATION; REVENGE.
and design in drunkenness, 664, 700, 708, 715, 717, 789.
drunkenness relevant as to, 667, 695, 697.
in intoxication, proof of, 780.
intoxication in rebuttal of, 781.
no excuse, 127.
of alcoholic in evidence, 789.
of insane, 33.
Malicious mischief, 41, 43, 103.
in hysteria, 1027.
of idiots, 877.
of imbeciles, 883.
Malingerer after head injury, probable, 830.
definition of, 222.
Malingering, 70, 71.
Malpractice, 1173.
Management of patients, 38.
Mania, 953.
after fever, 967.
after overheating, 830, 959.
and paretic dementia compared, 953.
and undue influence, 236.
a potu. See DELIRIUM TREMENS.
appearance of, 71.
differs from delirium, 947, 950.
drinking liquor in, 852.
during delivery, 981.
feigned, 71, 74.
from absinthe, 798.
from cocaine, 799.
from crushed hand, 814.
from head injury, 824.

Mania—*continued.*
from liquor after head injury, 813.
from opium disease, 800.
from traumatism, 819.
homicide in, 96.
in climacteric, 935.
in epilepsy, 1042, 1043.
in epileptic child, 1059.
in gouty insanity, 1075.
in pregnancy, 979.
in rheumatism, 1075.
of melancholia, 963.
of phrenasthenia, 864.
old synonym for insanity, 27.
pathology of, 1164.
periodical, 989.
subacute, 1135.
transitoria, 972.
in delivery, 982.
treatment by baths in, 1190.
will made in, 1086.
with exalted ideas, 1000.
Maniac aggressiveness, 39.
alliteration, 39.
gaiety, 39.
revenge, 39.
rhyming, 39.
speech, 40.
Maniacal delirium, 967.
dislikes and revenge, 96.
excitement in circular insanity, 999.
fury, 38.
joy, 39.
melancholia, 964.
rapid mentality, 44.
remissions, 66.
Maniacs, pyromaniacal, 850.
recognize friends, 39.
Manie raisonnante, 996.
sans délire, 996.
Manner, insane, 32, 57.
Mann on epileptic insanity, 1047.
Manouvrier on stigmata, 857.
Manslaughter, drunkenness reduces murder to, 694.
Marce on head-injury prognosis, 823.
Marc on epileptic insanity, 1048.
Marital infidelity delusions, 350, 650, 651, 655, 658, 829, 938, 1074.
Marital infidelity delusions—*continued.*
delusions in phthisical insanity, 1074.
hallucinations in hysterical insanity, 1032.
homicide for, 520.
Marriage, 382.
alcoholism as affecting, 741, 742.
breach of promise of, 931.
by insane, 210, 742.
competency, 451.
how determined, the question of, 386.
contract, presumption, 451.
desire in circular insanity, 999.
idiots and lunatics cannot contract, 211.
improper, 41.
incapacity, burden of proof of, 455.
in lucid interval, 742.
inquisition as evidence of incapacity, 437.
in relation to insanity, 210, 742, 1119.
invalidation, effect of, on others, 439.
legality, 482.
of idiot or lunatic, 431.
of morphine user, 748.
plans of aged, absurd, 915.
plans, wills and insane, 362.
proof of capacity for, 387.
question how determined, 386.
tests, 383.
what incapacity affects, 382.
while intoxicated, 643.
wills and disparity of ages in, 345.
Marro on criminals, 86.
Masked epilepsy. See LARVATED EPILEPSY.
Massachusetts, divorce for alcoholism in, 755.
opinion in divorce law of, 744.
statute, opium-using ground for divorce in, 808.
Massage, 1183.
Masturbation causing stuporous insanity, 969.
in mania, 957.
Masturbatory insanity, 938.
Maternal heredity, influence of, 1125.

Matters of fact for jury, symptoms are, 178.
Maudsley on epileptic insanity, 1048.
Maule, J., on right and wrong test, 141.
separate opinion in McNaghten Case, 151.
McBride on Guiteau Case, 867.
McCullough Case, 1095.
McGlue Case, 665.
McKendrick on cholesterine, 1147.
McMullen Case, 1057.
McMunn's elixir habit, 802.
McNaghten Case (see also McNaughton), 19, 151.
Measles, effect of, 814.
Measure of proof in alcoholism, 780.
in civil cases, 475.
in criminal cases, 464.
Meat diet of insane, 1227.
Mediate heredity, 1120.
Medical and legal insanity, 125.
books in evidence, 605.
evidence, 107, 220, 536.
insufficient, 428.
low opinion of, 1069.
Medical evidence of traumatic insanity, 829.
weight of, 428.
journal in evidence, 554.
jurisprudence, Ray on, 1.
superintendent, 1206.
witness, examination of, 110, 536.
Megalomania, 863.
Melancholia, 961.
accusations and confessions, 207.
after fever, 967.
agitata, 964.
attonita, 966.
circulation in, 1165.
cum stupore, 996.
dislikes and revenge in, 96.
drinking liquor in, 852.
from *la grippe*, 1110.
from spinal injury, 819.
homicides in, 96.
hypochondriacal, 961.
in circular insanity, 995.
in climacteric, 935.
in pregnancy, 979.
Melancholia—*continued*.
in rheumatism, 1075.
may resemble mania, 953.
of alcoholism, 629.
of gouty insanity, 1075.
of phrenasthenia, 864.
pyromania in, 850.
suicide in, 42, 96.
undue influence in, 236.
with stupor, 966, 968.
Melangée on absinthe, 798.
Memories, kinds of, 1077.
Memory, 45. See also FORGETFULNESS.
after homicide, 94.
and understanding, 12, 14.
defect and responsibility, 187.
defect in brain syphilis, 1091.
defined, nonsane, 9.
derangements, 45.
failure and wills, 277.
false, 47, 48.
gaps or lacunæ, 46.
illusions, 48.
impairment and guardianship, 429.
is not lunacy, 421.
imperfect, 47.
in alcoholic insanity, 649.
in alcoholic trance, 643, 645.
in alcoholism, 643.
in brain disease, 1080.
in circular insanity, 997.
in epilepsy, 1033, 1040, 1052, 1059, 1060, 1061, 1069.
in fever, 45.
in homicidal impulse, 98.
in hysteria, 1033.
in imbecility, 883.
in insanity, 45.
in mania, 955.
in old age, 46, 904.
in senile dementia, 912, 913, 917, 920, 922.
in will making, 228.
lapses, 1080.
in traumatic insanity, 825.
loss, 45, 1071, 1077, 1161.
after head injury, 812.
from cocaine, 799.

Memory—*continued.*
in moral defectiveness, 45.
in paretic dementia, 1095.
of own name, 46.
of proper nouns, 46.
of epileptic, expert opinion on, 1069.
of olden events, 46.
of recent events, 46.
of testator, 352, 525.
of testator in evidence, 525.
power to recollect act, 148.
tests of, 46, 230.
treacherous, 48.
Memphis case of sexual perversion, 101, 1159.
Mendacity during puberty, 1026.
of alcoholics, 624.
of opium users, 800.
Mendel on insanity, 64, 956, 1135, 1139.
Meningitis, tubercular, 1071.
Meningo-encephalitis, 814.
Menopause, period of the, 935.
Menses, 60, 65.
in hysterical insanity, 1032.
in mania, 955.
Menstrual derangements, 1110, 1111, 1132, 1189.
Menstrual period, impulses during, 942.
Menstruation in epilepsy, 1059.
Mental agitation in circular insanity, 996.
condition of criminal, 522.
condition of testator, 522.
confusion, 44.
defects in epilepsy, 1045.
depravity not insanity, 127.
derangement defined, 8.
deterioration, primary, 1087.
disease not unsoundness, 208.
enfeeblement, Clouston on, 205.
epilepsy, 1040.
hysteria, 1025.
[illegible] and paralysis, 231.
[illegible]y and fraud in contracts, 247.
[illegible] defined, 9.
[illegible] epilepsy, 1044, 1045.
[illegible] insanity, 979.
[illegible]ral neurasthenia,
Mental—*continued.*
weakness does not incapacitate, 208.
weakness in old age, 909.
Mercurials, 1183.
Mercury causing insanity, 1113.
Merry wife murder case, 886.
Messiahship, delusions of, 866.
Messiahs, paranoiac, 870.
practicing, 1179.
Metals, fear of, 845.
Metaphysicians, obsessed, 846.
Meynert on insanity, 1139.
Mickle on paretic dementia, 816, 821, 1092.
Microcephalic idiocy, 875.
Migraine in heredity, 858.
Military liable to paretic dementia, 821.
Mind and physical disease, 232.
as an omnibus, unsoundness of, 12.
blindness, 44.
disposing, 9, 224.
evidence of paralysis affecting, 526.
in apoplexy, 1079.
in phthisis, 1071, 1072.
no excuse, weakness of, 126.
of aged affected by hemiplegia, 1085.
of paralyzed, 1076.
testamentary, 9.
unsoundness of, 9, 12.
weakness of, 9.
Minor, drunkenness of, criminal responsibility, 714.
epilepsy, 1037.
Miracle working hysterical, 1027.
Miryatchit, 188, 853,
Mischief making hysteria, 1027, 1030.
Mischievousness of insane, 1101.
no excuse, 127.
Miserliness, 40, 217.
and wills, evidence, 345, 348, 360.
Misers as degenerates, 842.
Mismanagement of property, 217.
Missouri, intoxication not relevant in, 691.
Mistakes of memory, 48.
Mistaking objects, 1078.
persons, 1077.

Mitchell, S. W., on hallucinations, etc., 42, 50.
Mitigating circumstances, 668.
Mitigation. See also DEGREE OF CRIME; REDUCTION.
of crime, drunkenness in, 694.
of slander, from drunkenness, 784.
through drunken insanity, 715.
through involuntary drunkenness, 707.
Mitral stenosis causing insanity, 1111.
Mixed insanities, 1112.
Mobbing for rape, 855.
Mob law, 122.
Moderate drinking, 618.
Money given away by insane, 39.
making faculty, 62, 218.
thrown away by insane, 39.
Mongol idiocy, 876.
Monomania, 860. See also PARANOIA.
abandoned term, 2, 3.
and wills, 342.
definition of, 8, 184.
impulsive, 845.
legal definition of, 8, 164.
Lord Brougham on, 233.
of pride, 863.
reasoning, 845, 860.
Monophasia, 1078, 1161.
Moon's phases and insanity, 84.
Moral causes of insanity, 1105, 1107.
defects and memory loss, 46.
degeneracy of insane, 39.
imbecile forgery, 102.
imbecility, 2, 102, 859, 883, 885, 970.
novel definition of, 1092.
influences in treatment, 1191.
insanity, 883, 970.
abandoned term, 96.
and wills, 306.
defined, legal, 170, 205.
Walker on, 305.
insensibility of criminals, 85.
mania is a defense, 172.
impulse in, 171.
not a defense, 171.
Ray on, 2.
sense defects, 46.
in organic brain disease, 1080.
Morbid anatomy of insanity, 1128.
of paretic dementia, 1099.
fears in pregnancy, 979.
impulses, 97, 844. See also IRRESISTIBLE IMPULSE; UNCONTROLLABLE IMPULSE.
Morbid irritability of epilepsy, 189.
Morel on insanity, 841, 886, 986, 1050.
Morphine, 1185. See also LAUDANUM; OPIUM.
causing temporary insanity, 712.
Morphine habit, divorce for, 808.
incapacity, temporary, 488.
or opium habit, 799.
overdose, homicide from, 805.
used by testator, 526.
user, marriage of, 748.
Morphinism and other addictions, 798.
legal adjudications in, 806.
presumption in, 488.
undue influence and, 806.
Morrison Will Case, 931.
Morselli on suicide, 212.
Mortality of insane, 1127.
Mortality tables as evidence, 1258.
Mortgage of alcoholic, 722, 723, 730, 778.
of alcoholic insane, 732.
of lunatic and alcoholic, 723.
Mortgages, presumption in, 481.
Mortgagor, subsequent insanity of, 723.
Motive. See also DELIBERATION; DESIGN; MALICE; PLANNING; PREMEDITATION; REVENGE.
in alcoholism, 673, 695, 715, 717.
in drunken homicide, absence of, 713.
in epilepsy, 1052.
in epileptic crimes, 1046, 1047.
proof to establish, 183.
Motiveless crimes of epileptics, 1047.
Motor aphasia, 1161.
excitement, 38.
in insanity, 78, 103.
Motot on absinthe, 798.
Müller, Max, on speech and thought, 37.
Multiple sclerosis, 232.
Murder of patients, 1237, 1252.
Muscular strength, abnormal, 187.
Musical idiots, 876.

Music, hallucinations of, 54.
in treatment, 1191.
memory loss for, 1077.
Mutilations of insane, self, 214.
of self by alcoholic insane, 650.
Mysophobia, 77, 845, 847, 894.
delusions of, 855.
fixed ideas in, 855.
Mystic delusions of paranoia, 863.
Mystics, the paranoiac, 868.

N

Nancy school of hypnotism, 106.
Narcosis from darnel seeds, 798.
Narcotics used by testator, 354.
Nasse on classification, 28.
Nationality of alcoholics, 632.
Nature of act, knowledge of, 132.
as evidence, 183, 495.
itself in wills, 952.
proof of, 265.
Nature of crime, 183, 826.
of delusions, 67.
of will, insanity inferred from, 952.
Nausea after head injury, 809.
Neglect charged in divorce case, 751, 753.
of drunken wife, 718.
of family by paretic dement, 1094.
to plead, 92.
Negligence, alcoholism affecting, 768, 775, 783.
contributory, 789, 790.
damages through drunken, 769, 786.
of alcoholic, a question for jury, 775.
of drunken employee, 781.
voluntary intoxication is, 770.
Negro ravishers, 854.
Neisser on rest treatment, 1191.
Nepotism in asylums, 1233.
Nervous attacks and wills, 485.
disorders in heredity, 844.
Nervousness of testator as evidence, 353.
Neubaur on auto-toxæmia, 1153.
Neurasthenia, cerebral, 844.
New Hampshire, no test in, 135.
Newton's intellect, 844.
Nicholl, Sir John, on insanity, 15, 156, 950.
Niemeyer on hypochondria, etc., 959, 1085.
Nightmare of children, 945.
Night terrors after head injury, 811.
watches in asylums, 1213, 1214.
Nitrite of amyl in epilepsy, 1036.
Nocturnal epilepsy, 1049.
No divisions of insanity in law, 29.
No excuse, anger and resentment, 175.
anger is, 127.
bad education is, 126.
bad habit is, 126.
bad passion is, 127.
excitement is, 127.
fear is, 127.
frenzy not insanity and, 127.
insanity *per se*, 125.
jealousy is, 127.
love of gain is, 127.
low intellect is, 126.
malice is, 127.
mischievousness is, 127.
passion is, 127.
rage is, 127.
ungovernable passion is, 127.
unreasonable wrath is, 127.
vice causing insanity is, 125.
weakness of mind is, 126.
No intermediate between sanity and insanity, 162.
Noise in asylums, 36, 1191.
Non compos mentis, 205.
definition of, 9, 383.
Blackstone's definition of, 6.
Coke's definition of, 6.
inclusion, 6.
in old English law, 10.
Nonexpert opinion. See also OPINIONS.
acquaintance necessary, 562, 568.
as to kleptomania, 558.
exceptions to rule in, 563.
general rule as to, 557.
weight of, 596.

Nonexperts, scope of opinions of, 580.
Nonpayment of insurance premiums, 212.
Nonrestraint, treatment by, 1193.
Nonsane memory defined, 9.
Nostalgia, 41, 1108, 1146.
  causing insanity, 1108.
  homicidal, 1109.
Not a defense, moral mania, 171.
Note of alcoholic, 720, 722, 725, 758, 767, 788.
Note of drunken gambler, 783.
  of feeble-minded alcoholic, 726.
  of insane, promissory, 208.
No test of habitual drunkenness, 765.
No test of insanity, 24, 149.
  cases of, 135.
  in Alabama, 135.
  in New Hampshire, 135.
Not insanity and no excuse, frenzy is, 127.
  belief in spirits is, 167.
Not insanity—*continued*.
  depression after illness is, 127.
  eccentricity is, 127, 188.
  extravagance is, 188.
  hallucination is, 188.
  hypochondria is, 127.
  ignorance is, 188.
  illiteracy is, 188.
  mental depravity is, 127.
  passion is, 188.
  slight defect is, 125.
  suspicion is, 188.
Notoriety in hysteria, love of, 1028.
Nouns, loss of memory of, 46, 1077.
Numbness from cocaine, 799.
Nuncupative wills, 369.
Nymphomania and divorce, 393.
Nymphomania (erotomania) defined, 177.
  in circular insanity, 998.
  in pregnancy, 979.
  of maniac, 957.

O

Objections by prisoner, 92, 181.
  to drunken witness, when, 797.
Objective symptoms, 222.
Observational power, test of, 230.
Obsessions, 24, 856.
  aboulic, 855.
  dipsomaniac, 647.
  homicidal, 98, 852.
  in general, 856.
  irresistible tendencies of, 845.
  of fear, 845, 846.
  of indecisions, 845.
  or besetments, 844.
  propensities, 845, 847.
  symptoms of, 845.
Occupations causing alcoholism, 639.
  insanity, 1120.
  effect of, 284, 1120.
  of alcoholics, 632.
Ocular treatment for insanity, 1132.
Oddity is not insanity, 127.
Odor, insane, 56.
Offense, drunkenness aggravating, 665, 686.
Offense—*continued*.
  of drunken minor, 714.
Offenses against property, circular insane, 206.
  imbecile, 206.
Office, public insanity affecting, 882.
  vacation of, 206.
Offices and places of trust, alcoholism affecting, 755.
Offices given to dramsellers, 635, 638, 1203, 1233, 1239, 1252, 1256.
Oinomania, 647.
  responsibility in, 685.
Old age, 902. See also AGE.
  and forgetfulness of testator, 351.
  hemiplegia, effect on mind in, 1085.
  insanity in, 927.
  no presumption of incapacity, 451, 452.
  presumption in, 487.
  senility or, 228.
  testamentary capacity in, 349, 907.
Old maid's insanity, 936.
Olfactory impairment, 1081.

Omission to institute inquiry, 194.
Onomatomania, 847.
Open and close in will cases, 481.
Operations upon insane, 1173.
Opiates, divorce for using, 744.
Opinions. See also EXPERTS; NON-EXPERTS.
acquaintance necessary to give, 568.
as to causes of epilepsy and insanity, 551.
as to effect of alcohol after head injury, 795.
as to intoxication, in evidence, 792.
based upon the evidence, 539.
covering the question at issue, 583, 584, 585, 586, 793.
exceptions to general rule as to non-expert, 563.
facts which may be shown as a basis for, 577.
founded on books, 1273.
founded on examination in evidence, 536.
general rule as to nonexpert, 557.
hypothetical question, 542, 586, 587.
in evidence relate, time to which, 588.
knowledge which will warrant, 573.
of attesting witness, 564, 600.
of daughter when privileged, 568.
of experts, scope of, 550.
valuable as evidence, 447.
as to memory of epileptic, 1069.
of nonexperts, 428, 794.
admissibility, 557.
as to suicide, 560.
scope of, 580.
weight of, 596.
on control of appetite, nonexpert, 794.
on epilepsy, expert, 1069.
on kleptomania, expert and nonexpert, 558.
time to which they relate, 588.
weight of expert, 590.
Opinions—*continued.*
who may give, 567.
Opium, effects of, 634. See also LAUDANUM; MORPHINE.
effect on responsibility, 685.
excesses of authors, 843.
given by physician, 761.
given to children, 634.
habit, divorce for, 744, 808.
habit is not drunkenness, 808.
insanity as defense, 805.
in treatment, 1185.
or drugs, intoxication by, 761.
or morphine habit, the, 799.
overdose, homicide from, 805.
poisoning antidote, 1185.
taken by testator, 356.
user as witness, 624, 807.
commitment of, 802.
evidence of crime by, 801.
using as defense, evidence, 523.
divorce for, in Massachusetts, 744.
insanity from, 802.
responsibility in, 685.
warranty in insurance, 807.
Organic brain disease, 45.
dementia from, 1085.
effects of, 1076.
of aged, 909.
Organic changes in insanity, 1154.
dementia, 1086.
Orificial paranoia, 870.
Osler on delirium tremens, etc., 625, 642.
Otitis media suppurativa, 814, 842, 858.
Outbreaks of insane, 38.
Ovarian insanity, 936.
Ovariotomy treatment of insane, 1174.
Overdose and insurance, 807.
Overheating and drunkenness, 636, 665.
causing mania, 830.
causing insanity, 873.
effects of, 813.
insanity from degree of crime, 164.

P

Pæderasty, 100.
Pain, absence, 59.
Pain and wills, 354.
Painful menstruation, 61.
Pallor in epilepsy, 1036, 1040.
Palmus, 853.

Palsy and mind, shaking, 232.
Panphobia and dipsomania, 647.
Paræsthesiæ, 1163.
Paralysis, affecting mind, evidence of, 526.
testator, evidence of, 564.
agitans and mental states, 232.
alcoholic, 626, 633, 735.
and mental impairment, 231.
from alcoholic abstinence, 632.
from head injury, 810, 812.
hysterical, 1024.
in age affecting witness, 614.
in brain disease, 1081.
in paretic dementia, transient, 1098.
not presumptive of insanity, 485.
of atheromatous insanity, transient, 1087, 1088.
of insane, 55.
of syphilis, 1091.
of will power, 844, 855.
on wills, effect of, 231, 526.
speech loss with, 1076.
testamentary capacity and, 342, 355, 357.
with epilepsy, 1037, 1061.
Paralytic alcoholic, will of, 735.
idiocy, 875.
insanity, 1092.
wills made by, 231, 526.
Paramnesia, 47.
Paranoia, 860.
after head injury, 822, 823, 831, 832, 833.
case of aggressive, 900.
following typhoid fever, 891.
formerly monomania, 2, 3, 860.
from opium, 803.
in traumatic alcoholic, 833.
sine delirio, 860.
wills and (monomania), 342.
with alcoholism, 1111.
W. W. Ireland on, 121.
Paranoiac accusations and confessions, 207.
delusions, 99, 116.
expects approval, 116.
forgery, 102.
kleptomania, 101.
Paranoiac—*continued*.
litigious propensity, 207, 868.
pyromania, 850.
responsibility, 117.
revenge, 236.
Paranoiacs, excuses for homicides by, 95, 99.
homicides by, 95, 99.
regicides by, 95.
Paraphasia, 1078, 1161.
Parchappe on classification, etc., 27, 822.
Paregoric given to children, 634.
habit, 802.
Paresis, progressive, 1092.
Paretic dementia, 1092.
alcoholic, 648.
anæsthesia in, 1164.
circular insanity in, 1009.
civil acts in, 210.
deliberation, 97.
drinking liquor in, 852.
frequency among soldiers, 821.
homicidal, 97.
in pregnancy, 981.
pyromania, 850.
quiet, 1096.
resembles alcoholism, 622.
syphilitic, 1092.
thefts in, 850.
traumatic, 821, 831.
undue influence in, 236.
wills and, 234, 355, 358.
Paris school of hypnotism, 106.
Parker, C. J., on defense, 89.
Parkinson's disease and mind, 232.
Parliamentary inquiry concerning drunkenness, 676.
as to tests, 19, 141.
Paroles of patients, 1194.
Paroxysmal mental disturbance in epilepsy, 1043.
Parsimony of age, 904.
Partial insanity, 7, 138, 164, 205.
affecting testamentary capacity, 293.
a misnomer, 39.
and contracts, 246.
and conveyances, 256.
and delusions, proof as to, 358.

Partial insanity—*continued*,
and wills, 292.
Blakely Will Case, 116.
definitions, 164.
excuses, when, 165.
Krafft-Ebing on, 116.
Legrand du Saulle on, 116.
Ray on, 116.
test of responsibility, 165.
in wills, 294.
Partial responsibilty, Legrand du Saulle on, 116.
Particeps criminis hypnotism, 107.
Particular act, test of, 130.
Particular right and wrong test, 23, 24.
Partnership, what insanity dissolves, 379.
with insane, 209.
Parturition, 979.
Passion in divorce case, 751.
no excuse, bad, 127.
no excuse, ungovernable, 127.
not insanity, 188.
of testator, evidence, 353. See also ANGER; IRRITABILITY; IRASCIBLE.
Patents, English law of, 209.
Pathological literature, 843.
Pathologist of asylum, 1209.
Pathology, 1128.
of alcoholic insanity, 651.
of alcoholism, 623.
of paretic dementia, 1099.
Patience, 33.
Patient's statements to physician, 223.
Pavor nocturnus, 945.
Paying patients for asylum work, 1193.
Payment by alcoholic, valid, 722.
secured by inducing intoxication, 724.
Payments to alcoholic, 768.
Peculiarity not insanity, 427, 474.
Peeters, Dr., of Gheel colony, 1204.
Pellagra, 1113.
Pellagrous insanity, 1113.
Penitence, real and assumed, 86.
Pepper on aphasia, 232.
Periodical insanity, 988.
Periodical insanity—*continued*.
cases of, 1009.
from head injury, 819.
habeas corpus in, 447.
of degenerates, 864.
guardianship, 423.
presumption of continuance in, 485.
Period of depression in circular insanity, 993.
of excitement in circular insanity, 996.
Periods causing insanity, life, 1111.
Periodical mania, 989.
melancholia, 989.
Periodicity, 988.
Perjury, alcoholism as defense in, 717.
Permanganate of potassium, 1189.
Perpetual motion seekers, 842.
Persecuted persecutors, 865.
Persecution in hysteria, delusions of, 1028.
in phthisical insanity, delusions of, 1073.
delusions of, 51.
Persecutory paranoia, 865.
Personal characteristics, proof of, 187.
Personal injury, alcoholic negligence, 781.
and alcoholism, 676, 768, 783, 786.
burden of proof in, 778.
in divorce case, 752.
of alcoholic, insurance for, 762.
resulting in insanity, 221.
through contributory negligence, 789, 790.
through drunken employee, 786.
Persons, memory loss of, 1077.
Perspiration of insane, 1153.
Persuasion, 104.
Perversions during menstruation, 942.
of appetite in hysteria, 1022.
of appetite in pregnancy, 979.
of disposition, 39.
Perverted affections, 170, 233. See also AFFECTIONS; AVERSIONS.
circulation, 1135.
Pestilence of alcoholism, 674.
Peterson, F., on epileptic colonies, 1196.

Petit larceny of opium eaters, 799.
mal, actions after, 1042.
mal, behavior in, 1045.
mal epilepsy, 1034, 1037.
mal fury, 1049.
Phelps, R. M., on alcoholic paretic dementia, 648.
on skull fractures, 810.
Phobias, 846.
Phospho-albumen, 1188.
Phrenasthenia, 856.
from head injury, 823.
Phrenological classifications, 27.
Phrenology, Ray on, 27.
Phthisical insanity, 1072.
Phthisis, 1071.
among alcoholics, 633.
florida, 1074.
in insanity, 58, 59.
mental states in, 1071, 1072.
toleration of alcohol in, 634.
Physical and mental condition, of criminal as evidence, 522.
of testator, 522.
infirmity and age, 451, 452.
weakness does not incapacitate, 208.
Physical capacity for conveyance, 730.
causes of insanity, 1109, 1115.
condition in age, 902.
of insane, 55.
of testator, 353.
testimony of, 583.
defects not insanity, 427.
degeneracy, 841.
disability on wills, effect of, 231.
infirmity no presumption of incapacity, 451, 452.
peculiarities of criminals, 84.
peculiarities of degenerates, 857.
symptoms of circular insanity, 996, 1000.
Physicians of asylums, 1209.
Pinel on insanity, 27, 859, 1132.
Pinel's reforms, 1248, 1254.
Pitt on alcoholic kidney, 625.
Places, fear of, 845.
memory, loss of, 1077.
Plaintiff's statements to expert, 223.
Planning, 33, 103. See also DELIBERATION; DESIGN; INTENT; MALICE; MOTIVE; PREMEDITATION; REVENGE.
by epileptic, 1055, 1064.
concerted, 38.
in alcoholism, 673.
in transitory frenzy, 96.
Plea, drunkenness as a, 717.
of epilepsy, 1058.
of insanity, 208.
subterfuge, 121.
prisoners objecting to, 92, 181.
Plead, neglect to, 92.
refusal to, 92.
Plots, delusions of, 50. See also DELUSIONS OF PERSECUTION.
Pneumonia, delirium after, 967.
in insanity, 1100.
strait jacket causing, 1198.
Poe, Edgar A., insanity of, 843.
Poets, insane, 843.
Pointed objects, fear of, 845.
Poisoned blood, 1142.
Poisoning by accident in insurance case, 763.
by drunkard, 696.
by epileptics, 1047.
by pubescent nurse girls, 942.
Poisons as causes, 1112.
delusions of, 50, 829.
effect of, 944.
fear of, 845.
suspicion of, 41.
Political criminals, 86.
Political delusions, 50.
of paranoia, 863.
insanity, 1119.
rights, 206.
Polyneuritis, alcoholic, 624.
Poor and rich, chances of recovery in, 1126, 1168.
Popular clamor in trials, 89.
Positions of insane, 55.
Post-alcoholic conditions, 627.
insanity, 632.
Post-connubial insanity, 967.
Post-epileptic automatism, 1041, 1052.

Post-epileptic—*continued.*
conditions, 1040.
Post-febrile idiocy, 876.
insanity, 967.
Post-mortem, findings in, 1131.
of delirium grave, 1089.
of terminal dementia, 1100.
opposition to, 1209.
Post-paralytic insanity, 1086.
Postponement of trial for crime, 192.
Postures of insane, 1134.
Potamophobia, 845.
Pottier's Case, 868.
Power to distinguish right and wrong, test of, 149.
to recollect act, 148.
Precocity of children, 1073.
Predisposition, 1114, 1134.
through head injury, 811.
to senile dementia, 911.
traumatic, 883.
Pre-epileptic automatism, 1052.
Pregnancy causing cerebral neurasthenia, 844.
in insanity, 1199.
kleptomania in, 101.
mental states in, 979.
thefts during, 850.
Prejudice affecting wills, 238, 359.
against relatives, hysterical, 1027.
in paretic dementia, 1096.
in pregnancy, 979.
unreasonable, 233.
Preliminary inquest in criminal cases, 193, 194.
Premeditation, 33, 94, 103, 174, 712. See also DELIBERATION; DESIGN; INTENT; MALICE; MOTIVE; PLANNING; REVENGE.
and deliberation, intoxication affecting, 697.
drunkenness relevant as to, 667, 695.
in alcoholism, 672, 674, 697, 708, 781, 794.
in delirium tremens, 96.
in epilepsy, 1055, 1056, 1064, 1065.
in transitory frenzy, 96.
Premiums, nonpayment of, 212.
Premonition of homicidal impulse, 98.
Prendergast Case, 99, 866.
Preparation in transitory frenzy, 96.
Presumption. See also BURDEN OF PROOF.
against hereditary insanity, 358.
and burden of proof, 449.
as to recurrent insanity, 483, 988.
as to suicide, 477.
from removal to asylum, 192.
in civil cases, 208.
in criminal cases, 775, 776.
as to alcoholism, 487, 483, 776.
as to morphinism, 488.
from discharge, 482.
from flightiness, 485.
in law, no, 479.
inquest raising, 429, 438.
in will cases, 451, 777.
not of law but fact, 452.
of capacity, 776.
of continuance in alcoholism, 487, 779, 780.
business capacity, effect of inquisition, 437.
evidence to rebut, 487.
habitual insanity, 477.
in apoplexy, 485.
incapacity of drunkard, 766.
of lucid interval, 487, 488.
of insanity, 477, 480, 482, 485, 780.
of incapacity after verdict, 765.
of premeditation, 699.
of recovery, 780.
of recovery, presumption to rebut, 487.
of sanity, evidence for, 449.
of sanity from discharge, 446.
of testator's sanity, 451.
of unsoundness of alcoholic, no, 765.
on application for habeas corpus, 452.
paralysis as affecting, 485.
physical and mental infirmity as affecting, 451, 452.
reversed by inquisition, 439.
old age as affecting, 451, 452, 487.
Presumptions and burden of proof of intoxication, 776.
Presumptive evidence, inquisition as, 429, 438.

Pretended insanity, 70.
Prevention of drunkenness, 674.
Previous and subsequent insanity, proof of, 181.
Previous and subsequent intoxication, 787.
condition of mind, evidence of, 489.
insanity, 193, 487.
effect of, in evidence, 429.
in evidence, 481, 482, 491.
of grantor, evidence, 483.
intentions in wills, 952.
Prichard on insanity, 2, 49, 816, 826, 970, 1170.
Pride, 40.
Primary confusional insanity, 969.
dementia, 938, 967, 1086, 1087.
mental deterioration, 1087.
neurotic idiocy, 876.
Prince on homicidal impulse, 858.
Printing, memory loss for, 1077.
Prisoner, interruptions by, 92.
examination of, during trial, 523.
objecting to plea, 92, 181.
objections by, 92.
rights of, 92.
Prisoners, insanity among, 1108.
Privilege, opinion of daughter, 568.
Probing of brain, danger of, 810.
Prodigies, idiotic, 876.
Profanity and filthy habits in testamentary capacity, 344, 345, 347.
and testamentary capacity, 348, 352.
in divorce case, evidence of, 749, 750, 752, 753, 754.
Professions as causes, 1120.
Prognosis, 1124.
of head injury, 813.
insanity, 823.
of mania, 958.
of melancholia, 966.
violence in, 954.
Progressive heredity, 1121.
paresis, 1092.
Promise, breach of, 211.
Promissory notes. See also NOTES.
of insane, 208.
Proof, 180. See also EVIDENCE.
as to insanity, after suicide, 416.
Proof—*continued*.
as to partial sanity and delusions, 358.
before and after committal, 192.
beyond a reasonable doubt, 464.
burden of, affected by inquisition, 439.
and presumption, 449.
generally, 453.
testamentary capacity, 433.
generally, 180.
how determined, sufficiency of, 262.
in civil cases, measure of, 475.
measure and weight of, 260.
of, in criminal cases, 464.
necessary for guardianship, 427.
to establish insanity, 180.
of acts and conduct, 184, 267.
of acts, conduct, and declarations of alcoholic, 789.
of adjudications of insanity, 272.
of admissions and confessions, alcoholic, 789.
of age, difference in, in marriage, 345.
of age, weakness, disease, 270.
of alcoholism, 776, 780, 781, 782.
of capacity to marry, 387.
of conduct of others, 270.
of epilepsy, 1049.
of exciting causes, 188.
of heredity, 190.
of insanity, civil, 260.
of insanity, insurance, 416.
of intoxication, opinions in, 791.
of knowledge, capacity, and intent, 364.
of lucid intervals, 370, 478, 780.
of malice in intoxication, 780.
of motive, 183.
of nature of act, 183, 265.
of partial insanity and delusions, 358.
of personal characteristics, 187.
of previous and subsequent insanity, 181, 263.
intoxication, 787.
of previous intention, 266.
of recovery, 482.
of reform of drunkard, 766.
of responsibility, 471.

Proof—*continued.*
of testamentary capacity, 315, 326.
of undue influence, 362.
of unsoundness, 272.
preponderance of, 465.
to establish insanity, 182.
to establish wills, 315, 326.
Propensities, destructive, 855.
erotic, 854.
obsession, 845, 847.
Proper nouns, memory loss of, 46.
Property mismanagement, 217.
offenses against, 206.
unnatural disposition of, 227.
Provocation, 33.
in mitigation, 668.
Pruritus causing insanity, 1110.
Prussic acid, effects of, 1113.
Pseudo-dipsomania, 647.
paretic dementia, 648.
Psychical epilepsy, 885.
Puberty, 938.
accusations and confessions, 207.
homicidal, 95.
hysteria during, 1026.
kleptomaniac, 101, 850.
Puberty, pyromania in, 851.
Pubescent insanity, 938.
Public control of dramseller necessary, 680.
office, 382, 755.
responsibility for drunkard, 680.
Puerperal convulsions, 983.
hallucinations after, 233.
insanity, 983, 1158.
Pulmonary tuberculosis heredity, 1073.
Pulse in epilepsy, 1036.
of insane, 57.
Punishment for disease, 675.
of drunkards useless, 676.
Punitive damages, not liable for, 207.
Pupils dilated or contracted, 1080.
in epilepsy, 1036.
of eyes, 59.
Purchase from drunkard, 782.
Purpose, capacity for criminal intent and, 126.
Pyromania, 102, 133, 847, 850.
at puberty, 943.
cases of, 941, 942.
in England and America, 941.
in France, 941.
in periodical mania, 989.
not an obsession, 851.
not insanity *per se*, 943.
Pyromaniacal patients, 1214.
Pyrophobia, 845, 850.

Q

Quacks treating the wealthy, 1126.
Qualification of experts, 546.
Quality of alcohol in defense, 782.
Quarrelsomeness from cocaine, 799.
of drunkard in evidence, 785, 788.
Querulanten, Wahnsinn, 868.
Question, effect and conclusiveness of determination of, 197.
for determination, present insanity, 195.
how determined, 197.
Question—*continued.*
of insanity, by whom determined, for guardianship, 426.
to jury, stating the, 150.
when and how raised, 193.
Quiet paretic dementia, 1096.
patients, 36.
Quinine, 1188.
as sedative, 1187.
insanity from, 833, 1113.

R

Race, 1117.
and alcoholism, 632.
Rage in epilepsy, 1042.
no excuse, 127.
Ramollissement, 1083.
Rapacity, 62.
Rape by epileptic, 1057, 1063.
assault with intent to, 706.

Rape—*continued.*
charges by hysterical insane, 1032.
delusion of, 673.
drunken assault with intent to, 706.
impulse to commit, 854.
incapacity affecting, 201.
in hysteria, accusations of, 1029.
may also be adultery, 718.
of drunken woman, 718.
of epileptic, 201.
of imbecile, 201.
of insane female, 201.
Rapid mentality in mania, 44.
Raptus-melancholicus, 86, 963.
Ratification, 209.
for burial expenses, 743.
of wills, 340.
Rationality of wills as evidence, 326.
Rations, army, 1217.
Rawson Case, 977.
Rayner of Hanwell on insanity, 1133, 1185, 1190.
Ray on insanity, 1, 10, 21, 27, 46, 70, 71, 104, 116, 118, 155, 215, 665, 879, 924, 942, 945, 1002, 1006, 1053, 1085, 1170.
Read, ability to, 64, 1077, 1078.
Real and assumed penitence, 86.
Realists, obsessed, 846.
Reasonable doubt, beyond a, 464.
of insanity, 471.
of sanity, 471.
will not acquit, when, 781.
Reasonable motive, absence of, 672.
Reasoning insane, 865.
monomania, 845, 860.
Reason in homicidal impulse, 98.
Receipt by drunkard, 788.
Recluses as degenerates, 842.
Recognition by epileptics, 1066.
memory loss of, 1077.
of friends by testator, evidence, 352.
of insanity, self, 62, 1087, 1094.
of paretic dementia, self, 1094.
Recovery, 70.
after insane ear, 1092.
apparent, 68, 69.
at and after trial, 200.
chances of, 1124.
Recovery—*continued.*
chances of rich and poor, 1126, 1168.
discharge is evidence of, 447.
effect of, 200, 218.
on guardianship, 431, 441.
entitles lunatic to discharge, 446.
from insanity, sudden, 1170.
in hysterical insanity, temporary, 1032.
of alcoholic and syphilitic paretic dements, 1098.
of damages against saloonkeeper, 772.
of money paid while drunk, 722.
presumption of, 487, 780.
proof of mental, 482.
rebutting presumption, 487.
Recreation for attendants, 1211.
Rectal treatment of insane, 1173.
Recurrent insanity, 483, 988.
crime in, 486.
drunkenness, 670.
questions to expert as to, 556.
temporary and, 177.
Redmond homicide case, 650, 658.
Reduction of crime, 164, 667, 671, 716. See also MITIGATION.
alcoholic insanity, 715.
alcoholism, 694, 704, 707.
Reflexes, 56.
in epilepsy, 1037.
Reflex insanities, 1112, 1132.
Reformers, hysterical, 1251.
jealousy among, 1249.
penalty of, 1255.
Reform, hysterical, 1026, 1251.
of alcoholic, 674, 677.
in divorce case, 755.
proof of, 766.
Refusal of medicines, 1168.
to plead, 92.
Regicides, English trial of, 867.
insane, 95.
paranoiac, 863.
Regis on insanity, 802, 846, 851, 852, 856, 861, 938, 981, 1122, 1135, 1147.
Regressive heredity, 1121.
Reil on insanity in Germany, 1247.
Relapses, 68.

Relationship between parties interested, evidence, 519.
Relatives, prejudices against, 233.
Religious and erotic delusions, 1118.
delusions, 50, 94.
of paranoia, 863.
despondency of climacteric, 936.
enthusiasts as degenerates, 842.
exaggeration in epilepsy, 1049.
in mania, 947.
hysteria, 1027.
insanity, 38, 1119.
paranoia, 868.
Remissions in paretic dementia, 1097, 1098, 1102.
of insanity, 32, 66, 68.
Remittent insanity, 989.
Remorse, 94.
after homicidal impulse, 99.
in epilepsy, 97, 1049, 1050, 1056.
of criminals, 86.
of Indian Thugs, 122.
Removal of convict to asylum, 192.
Remunerating patients for work, 1193.
Reputation for drunkenness, of railway employee, evidence, 786.
of being insane, 65.
of insanity in evidence, 528.
Resemblances, influence of inherited, 1125.
Resentment and anger no excuse, 175. See also ANGER.
by insane, 39.
Residence, determination of, 397.
Respiration, 58.
Respiratory trouble in brain disease, 1081.
Responsibility, 67, 90, 95, 112, 125. See also CAPACITY.
affecting insurance, criminal acts test, 410.
after head injury, 671.
and defective memory, 187.
a question for jury, 585.
Bishop on, 151.
criminal and civil, differences of, 128, 240.
determined by the court, 121.
difficulty of determining, 152.
Responsibility—*continued.*
effect of delusions on criminal, 168.
effect of sickness from drink on, 708.
Greenleaf on, 150.
how to study, 155.
in alcoholic insanity, 670, 709.
in alcoholic trance, 644.
in alcoholism, 3, 635, 671, 682, 684, 715.
in alcoholism, civil, 768.
in brain injury and alcoholism, 712, 715.
in delirium tremens, 710.
in dipsomania, 685.
in epilepsy, 1050, 1056, 1057, 1058, 1065, 1066, 1067, 1069.
doubt of, 1058, 1066, 1069.
in erotomania, 177.
in hysteria, 1031.
in involuntary drunkenness, 707.
in jury charge concerning drunkenness, 705.
in kleptomania, 177.
in opium and drug using, 685.
in temporary and incurrent insanity, 177.
legal, 240.
not a medical question, 113.
not a question for expert, 585.
of children, 118.
paranoiac, 117.
popular ideas of, 122.
proof of, 471.
R. M. Bucke on, 119.
Sir J. E. Browne on, 114.
test in drunkenness, 699.
test of, in partial insanity, 165.
tests generally, 128 *et seq.*
what insanity affects criminal, 129.
wilful drunkenness; insane tendencies, 708.
wills and criminal, 282.
Restlessness of insane, 40.
Restrain, right to, 443.
Restraint apparatus, 1547.
Restraint, chemical and mechanical, 1185.
of alcoholic, 763.
treatment by, 1193.

Rest treatment, 1190.
Retaliation of insane, 38, 39, 175. See also ANGER.
Retina in brain disease, 1081.
Retreats for habitual drunkards, 676, 677.
Revenge. See also ANGER; DELIBERATION; DESIGN; INTENT; MALICE; MOTIVE; PLANNING; PREMEDITATION; RAGE; RESENTMENT.
  arson in, 851.
  criminal and savage, 87.
  drunkenness, relevancy as to, 695.
  for adultery, 170.
  insane, 39, 96, 175.
  melancholia, 96.
  of epileptic, 1045, 1055, 1061.
  paranoiac, 236.
Reversions in heredity, 1121.
Revocation of wills, capacity, 373.
Reynolds and Bastian on brain softening, 1083.
Rheumatic insanity, 1075.
Rheumatism and gout, 1075.
  causing insanity, 1114.
    katatonia, 991.
Rich and poor, chances of recovery of, 1126, 1168.
Richards's school for idiots, 878.
Riding in treatment, 1192.
Riel, Louis, Case, 868.
Right and wrong in circular insanity, 1005.
  not intuitive, 122.
  power to distinguish, 149.
Right and wrong test, 8, 116, 473, 669, 712.
  abstract, 127.
  Clouston on, 118.
  expert opinion on, 586.
  in adolescence, 118.
  in drunkenness, 684, 686.
  in epilepsy, 1066, 1069.
  Lord Denman on, 147.
  Maule, J., on, 141.
  not applicable, when, 196.
  particular, 130.
  Shaw, C. J., on, 147.
Right-handed, speech center of, 1076.
  sided paralysis, mind in, 1076.
  to restrain, 443.
Rights, civil, 204.
  of prisoner, 91.
  political, 206.
Ripping on insanity, 1139.
Ritti on circular insanity, 992.
Rivers, fear of, 845.
Roaring noises in ears, 59.
Robertson on aphasia, 232.
Rochelle salts, 1184.
Roman law of responsibility, 113.
Roscoe on tests, 146.
Ross on alcoholism, 624.
Running amuck, 976.
Rupophobia, 845.
Rush on insanity, 817, 1084, 1170.
Russell on tests, 147.
Rutherford of Woodilee on insanity, 1188.

S

Saegert instruction for imbeciles, 878.
Sale by alcoholic, 732, 768.
Saliva of insane, 58.
Salivation in mania, 957.
Sallowness, 56, 1040.
Saloonkeepers, damages against, 772.
  in offices, 1252, 1256.
Saltatoric spasm, 853.
Salts in treatment, 1184.
Sane delusions of insane, 855.
  hallucinations, 233.
  testator presumed, 451.
Sanity and inquisition finding, 434.
  and insanity, no intermediate between, 162.
  apparent, 62, 66.
  presumed from discharge, 446.
  presumption of fact, not law, 452.
Sankey on insanity, 821, 1048, 1050, 1051.
Satyriasis (erotomania), 177.
  in circular insanity, 998.
  of mania, 957.
Saury on phrenasthenia, 864.

Savage on insanity, 99, 803, 817, 818, 826, 981, 1051, 1052.
traits of criminals, 87.
vengeance, 122.
Savants, idiots, 876.
Scandals by hysterical, 1028, 1030.
by paretic dements, 1097.
Scarlet fever causing degeneracy, 842.
effect of, 814.
epilepsy from, 1060.
thefts after, 850.
Schlaftrunkenheit, 41, 523, 1055.
Schläger on head injury, 815, 823, 824, 826.
Schools for idiots, 878.
insane, 1199.
Schüle on delirium grave, 1068.
Scientific books in evidence, 605, 1257. See also Books.
Scope of opinion of expert, 550.
of nonexpert, 580.
Scotch boarding-out system, 1204.
Scrofulous idiocy, 876.
Scrupulous, obsessed, 846.
Scudder Case, 74.
Seasons as causes, 1119.
Seclusion of patients, 1193.
Secondary confusional insanity, 969.
Secondary dementia, 1099.
of alcoholic insanity, 654.
Secretions, altered, 58.
Seduction causing delirium grave, 1088.
effect of, 982.
Seeing memory, loss of, 1077.
Segregate asylum system, 1204.
Seguin on education of idiots, 873, 878.
Self-abuse, 40, 989.
Self-accusations, 51.
Self-control. See also Will Power.
Self-control of insane, 31, 69.
Self-defense against homicidal drunkard, 718.
and drunkenness, 694, 718.
Selfishness, 40.
Self-mutilation by insane, 214, 958.
in hysteria, 1029.
Self-recognition of insanity, 62, 1067, 1094.
Self-restraint of insane, 31, 69.
Selling and buying by drunkard, 786
Senile dementia, 911, 928.
definition of, 8.
from head injury, 819.
homicidal, 95.
kleptomania, 101, 850.
misers in, 95.
of testator, evidence, 575.
sexual impulse, 100.
statistics of, 928.
Senile epileptic immorality, 1064.
insanity, 910.
testamentary capacity, 907.
Senility, 228, 902, 928.
thefts during, 101, 850.
Sense loss, idiocy through, 875.
Sensory aphasia, 232, 1161.
Sentence of insane, invalid, 192.
Sequential dementia, 1099.
Setons in treatment, 1188.
Settlement and receipt by drunkard, 78
Settlement or domicil, 397.
Sex of alcoholic, 632.
of homicidal lunatics, 94.
of insane, relative, 1119.
Sexual crimes, 87, 100, 177.
and divorce, 393.
defects, fear of, 961.
desire, cause of abnormal, 1112.
increase, 40.
evolution and pyromania, 943.
excesses, 1136.
function of idiots, 879, 881.
impulse in senile dements, 100.
of epileptic, 100.
perversion, homicidal, 100, 101, 17, 854, 1159.
Krafft-Ebing on, 100, 185.
propensities of imbeciles and idiots 879, 881.
Shaftesbury, Lord, on insanity, 63, 1206, 1347.
Shakespeare's intellect, 844.
Shaking palsy and mental states, 222.
Shamming of insanity, 70.
Shaw, C. J., on insanity, 117, 147.
Sheppard on epileptic insanity, 1042.
Shipwreck through alcoholism, evidence, 789.

Shoe-stealing mania, 185, 854.
Shuttleworth on feeble-mindedness, 820, 876, 885.
Sickness, legally, insanity is, 414.
from drink, criminal responsibility, 708.
Sieveking on epilepsy, 1050.
Sight hallucinations, 55.
Silly speech, 44.
Similar heredity, 1121.
Simple heredity, 1120.
Simulated epilepsy, 1053.
by the insane, insanity, 73, 95.
Simulation, Field on, 72.
of head-injury insanity, 830.
of insanity, 70, 73.
Site of asylum, 1205.
Skae on insanity, 28, 818, 824.
Skene on ovariotomy, 1175.
Skin of insane, 58.
Skull fractures, 809, 810.
Slander by alcoholic, 784.
action for, 786.
by insane, 402.
evidence in, 493, 519.
insanity as defense in, 206, 207.
Sleep after epilepsy, 1036, 1052.
after head injury, 809.
causes of, 1141, 1162.
derangements, 43, 65, 1053, 1141.
enemas to cause, 1186.
hysterical, prolonged, 1027.
in feigned insanity, 71, 77.
of aged person, 903.
of insane, 43, 56, 65.
state, homicide committed in, 523, 552, 1055.
stimulants to cause, 1187.
walkers, 1053, 1055.
walking as defense, 523.
Sleeping medicines, 1183.
Sleeplessness, 222.
after head injury, 811.
and wills, evidence, 353.
evidence of, 829.
in mania, 955.
of neurasthenia, 844.
treatment of, 1187, 1214.
Slight mental defect not insanity, 125.
Sloughs and bed sores, 58.
in paretic dementia, 1098.
treatment of, 1189.
Small asylum preferable, 1205.
Smelling. See OLFACTORY.
Smelling difficulty, 1081.
Sobriety necessary to criminal success, 674, 1252.
Sociology, 80.
Sodomy, 100.
Softening of the brain, 1081.
Soldiers liable to paretic dementia, 821.
Somnambulism, 41, 43, 645, 1053, 1163.
as defense, 523.
epileptic, 43, 1042, 1062.
homicidal, 523, 552, 1055.
Somnolentia, 1055.
Soothing syrups given to children, 634.
Sound mind, definition of, 9.
Spastic hemiplegia in epilepsy, 1037.
Special attendants, 1213.
Specialism, advantages, 84.
Speculative beliefs as delusions, 303.
Speech after epileptic attack, 1037.
and intellect relation, 37.
center in the brain, 1076.
defect, Gowers on, 231.
derangements, 37, 56, 64, 1077.
from head injury, 812.
impairment and wills, 231.
in brain syphilis, 1091.
incoherence, 44.
in mania and epilepsy, 44.
loss in hysteria, 1022.
with paralysis, 1076.
senseless, 1126.
Speechlessness, 1022, 1076, 1079.
Spencer, Herbert, on definitions, 5.
on reforms, 1256.
Spendthrift alcoholic, 673.
divorce of, 749, 753.
circular insanity, 1001.
guardianship of, 425, 426. See also GUARDIANSHIP.
insanity, 39, 216, 1095, 1101.
Spermatorrhœa, fear of, 961.
Spes phthisica, 39, 1071.

Spinal injury damage cases, 221.
type of paretic dementia, 1100, 1103.
Spiritualism, 235.
and suicide, 418.
as affecting wills, 304, 305, 306.
belief in, 121.
Spiritualist impostors, 1179.
undue influence, 930, 936.
Spitzka on insanity, 6, 28, 49, 804, 811, 818, 823, 825, 843, 866, 872, 879, 882, 911, 913, 928, 939, 954, 959, 968, 972, 1050, 1052, 1087, 1099, 1190.
Spoils systems in asylums, 1206, 1258.
Spurzheim on phrenology, 27.
Stages of paranoia, 863.
Staggering in brain disease, 1081.
Stammering, 37.
of epileptics, 1062.
Starr on brain disease, 1080.
State *v.* Jones, celebrated case, 136.
State board of charities, 1225.
Statements of insane, effect of, 192.
of patient to physician, 228.
Stating question to jury, Bishop on, 150.
Statistics of alcoholic insanity, 638.
alcoholism, local, 632.
causes of insanity, 1104, 1122.
climacteric insanity, 936.
delirium tremens, 643.
epilepsy with insanity, 1059.
heredity, 1122.
homicidal insanity, 94.
hysterical insanity, 1033.
mania, 959.
melancholia, 966.
of idiocy, 878.
paretic dementia, 1099.
senile dementia, 928.
tuberculosis, 1073.
Status epilepticus, 1039.
Statute of limitations, insanity as affecting, 398.
alcoholism as affecting, 757.
Stealing. See KLEPTOMANIA; LARCENY.
Stearate of zinc, 1189.
Stearns on epilepsy, 1046, 1050.
Stigma of insanity, 12.
Stigmata of cerebral neurasthenia, 844.
degeneracy, 56, 841, 857, 943.
Stimulants, 1187.
and testamentary capacity, 356, 357.
as sedatives, 1187.
causing epilepsy, 1056.
Stomach troubles, 65, 72.
washing, 1182.
Story on responsibility in drunkenness, 675.
Strabismus in brain syphilis, 1091.
Strait-jacket abuse, 1194, 1198.
Stramonium delirium, 944.
in cigarettes, 804.
Strange beliefs by testator, 360.
and wills, 233.
Strength, abnormal muscular, as evidence, 187.
Striking by epileptics, 1054.
Strümpell on brain disease, 1085, 1090.
Strut of insane, 55.
Strychnia, 1113, 1188.
Stupor, drunken and epileptic, 1058.
from drugs, will made in, 487.
in katatonia, 990.
pathology of, 1165.
with melancholia, 966.
Stuporous insanity, 968, 1198.
Stuttering, 37.
Subacute mania, 1135.
Subjective symptoms, 222.
Submission of issues as to insanity, 194.
Subscribing witnesses to wills, evidence of, 600.
Subsequent and previous intoxication, 787.
condition of mind, evidence of, 489.
insanity of mortgagor, 723.
proof to establish, 181.
recognition of will as evidence, 340.
Sudden attacks, 64.
recoveries, 64, 1170.
Suggested homicide, 97, 104.
Suicidal attempt, decision concerning, 707.
hypochondriasis, 961.
impulses, 24, 852.
after head injury, 825, 826, 837.

Sudicial impulses—*continued.*
from cocaine, 799.
Suicidal melancholia, 42, 96, 962, 966, 989, 1009, 1010.
rheumatic and gouty insanities, 1075.
transitory frenzy, 974, 976.
Suicide affecting insurance, 403, 404, 405, 410, 416, 553, 560.
advised by hysterical, 1028.
and life insurance, 211.
and mutual insurance, 414.
and testamentary capacity, 846.
as affecting accident insurance, 413.
attempts to commit, as affecting criminal responsibility, 707.
brain disease, evidence of, 418.
by insane, Ray on, 215.
by overdose, in insurance case, 405, 807.
by pistol shots in head, 840.
by senile dements, 915.
declaration of intent to commit, 417.
delirium tremens, wills and, 738.
early in insanity, 1087.
from irresistible impulse, insurance, 409.
from opium using, 804.
how determined, insanity before, 415.
in delirium tremens, 641.
affecting wills, 738.
in insurance case, accidental, 763.
insanity as affecting, 404.
intent as affecting insurance, 406.
Morselli on, 212.
not sufficient to establish insanity, 416.
of alcoholic, attempted, drunkenness as excuse, 707.
of insured, evidence of nonexpert as to, 560.
of insured melancholiac, evidence as to, 553.
of paranoiac, 871.
of paretic dement, 1102.
or homicide, question of, 840.
overdose of laudanum not, 405.
plans for, 70.
preludes to, 826.
presumption against, 477.
Suicide—*continued.*
previous behavior in, as evidence, 417.
test of capacity, insurance, 407.
under conditions against self-destruction, insurance, 410.
Suicides, hereditary, 852.
in asylum grounds, 1192.
of children, 852.
simultaneous, 869.
Sulcus of Rolando in intelligence, 857.
Sulfonal, 1186.
Sulpho-carbolate of zinc, 1181.
Summarische Errinnerung, 46, 644.
Sunday in asylums, 36, 1201, 1203.
Sunstroke and drunkenness, 665.
causing alcoholism, 636.
insanity, 837.
mania, 830.
effect of, 813.
legal insanity from, 164.
Superintendent, medical, 1206.
Superstition concerning epilepsy, 1198.
insanity, 34.
not insanity, 425.
obsessed, 846.
of gamblers, 846, 1242.
Supervision in asylums, 1206.
Supervisory liquor laws, 676.
Suppositories, 1183.
Suppurative ear disease, 814, 842, 858.
epilepsy with, 1060.
Surgery for insane, 1172, 1173, 1175.
Surrounding circumstances in evidence, 513.
Suspending trial, when, 195.
Suspension of execution, 93.
of judgment, 93.
Suspicion, delusions of, 50.
is not insanity, 188.
of improper influence, 235.
Suspiciousness in consumption, 1072.
in epilepsy, 1052.
in phthisical insanity, 1073.
in traumatic insanity, 824, 829.
of opium eater, 803.
Swallowing difficulty, 1081.
Swedenborg's case, 868.
Sympathetic insanity, 1131.

Symptoms are matters of fact for jury, 178.
in damage cases, 223.
objective, 222.
of insanity, 31.
subjective, 222.
Syphilis, 1089.
after head injury, 811, 822.
causing epilepsy, 1039, 1061.
causing insanity, 1133.
causing senile dementia, 912.
fear of, 961.
Syphilis—*continued.*
in heredity, 844.
modified by alcoholism, 628.
of brain, 811, 822, 1081, 1085, 1090, 1155.
of brain resembling head injury, 813.
Syphilitic dementia, 1091.
idiocy, 876.
insanity after head injury, 822.
paretic dementia, 1092, 1098, 1102.
Systematized delusions, 50, 1032.

T

Tactile sense, 59.
Tamping Iron Case, 823.
Tarde on stigmata, 857.
Taste, defects of, 1081.
Taylor, J. M., on insanity in children, 1116.
medical jurisprudence of, 1055, 1057.
Tea harms some epileptics, 1056.
Tears, 58.
Teeth in syphilitic idiocy, 876.
Telephone, delusions concerning the, 870.
Temperament, evidence of, 524.
Temperance in insurance case, definition of, 758.
Temperate habits, evidence of, 786, 790.
Temperature, effect of, 35.
in brain disease, 1081.
in delirium grave, 1089.
in epilepsy, 1037.
in epileptic insanity, 1044.
in *status epilepticus*, 1039.
of insane, 58.
of wards in asylum, 1205.
Temporary and habitual insanity distinguished, 484.
and recurrent insanity, 177.
hysterical insanity, 1031.
insanity, 177, 483. See also TRANSITORY FRENZY.
insanity from drink, defined, 716.
presumptive, 482.
unsoundness, drunkenness is, 684, 779.
Terminal dementia, 65, 1099.
and undue influence, 236.
of alcoholic insanity, 654.
of paranoia, 863.
Terror of delirium grave, 1088.
Test, abstract right and wrong, 129, 196.
as to arson, 133.
as to knowledge, capacity, and intent, 132.
as to knowledge of nature of acts, 132.
as to particular act, 130, 241.
cases denying existence of a, 135.
delusion as a test, 129, 154, 157, 282.
not the only, 204.
wills and, 282.
in Alabama, no, 135.
in epilepsy, right and wrong, 1066, 1069.
infant or wild beast, 128.
in idiocy, 208.
in lunacy proceedings, 423.
in New Hampshire, no, 135.
Maule, J., on right and wrong, 141.
of capacity to marry, 382, 383.
of capacity to transact business and wills, 284, 341.
of capacity to understand act in suicide; insurance, 407.
of consciousness and intent in suicide, insurance, 406.
of contractual ability, 241, 244.
of conveyancing capacity, 252.
of criminal responsibility, 165.
of drunkenness, 699, 765.
of idiocy, 208.

Test—*continued.*
of insanity, 12, 128.
individual, 844.
Lord Hale on, 12.
R. M. Bucke on, 119.
Tracy on, 13, 139.
of knowledge of nature of act, 132.
of memory, 230.
of moral mania, 174.
of observational power, 230.
of partial insanity, 165.
of power to recollect relations with others, 148.
of responsibility for criminal acts, suicide, insurance and, 410.
of right and wrong, when not applicable, 196.
of testamentary capacity, 282, 284, 286, 287, 291, 341.
right and wrong, 116, 473, 669.
right and wrong in alcoholism, 685, 686.
time of application of, 162.
conveyancing, 255.
Tracy on infant and wild beast, 139.
Testamentary capacity, 68, 224, 273, 326, 448, 676, 733, 907. See also WILLS.
accounts as evidence of, 343.
a conclusion from facts, 587.
act itself in, 952.
acts and conduct as evidence of, 343.
after head injury, 953.
and alcoholism, 675, 733, 737, 777, 779.
and delusions, 296, 298.
burden of proof, 433.
business capacity as evidence of, 341.
eccentricity as affecting, 279.
English rule as to, 952.
evidence of, 520, 521, 530.
how determined, 308.
in consumption, 1071.
in delirium, 948, 950.
in epilepsy, 1052, 1053, 1067, 1068.
in hemiplegia, 1085.
in organic brain disease, 1079.
in paralysis, 342, 355, 357.
in pregnancy, 979.
in softening of the brain, 1085.
Testamentary capacity—*continued.*
morphinism as affecting, 526.
old age as affecting, 349, 907.
Sir J. Nicholl on, 156.
stimulants as affecting, 356, 357.
what partial insanity affects, 293.
wills and delusions, 295.
Testamentary incapacity, 362, 433. See also WILLS.
absent-mindedness as evidence of, 352.
abusiveness as evidence of, 352.
age, weakness and disease not, 275.
amorous remarks as evidence of, 352.
atheism as evidence of, 345.
change of character as evidence of, 347.
effect of guardianship on, 437.
false accusations as evidence of, 352.
filthy habits as evidence of, 344, 347, 360.
old age and weakness as evidence of, 352.
old age as evidence of, 349, 352.
old age, weakness, intemperance, etc., as evidence of, 338.
profanity as evidence of, 352.
sleeplessness as evidence of, 353.
use of liquor as evidence of, 354, 356, 357.
Testamentary mind, definition of, 9.
Testator, acquaintance of witness with opinions, 568.
and heirs, difficulties between, as evidence, 520.
daughters of, as witnesses, competency of, 568, 570.
eyesight, evidence of, 525.
insane, may make later valid will, 433.
memory, evidence of, 525.
mental failure, evidence of, 564.
physical and mental condition, 522.
presumption of insanity after inquisition, 435.
sanity presumed, 451.
senile dementia of, 575.
using morphine, 526.
wife as witness, competency of, 571.

Testimony of attesting witnesses, 320.
by lunatic, 611.
value of, 428.
weight of affirmative and negative, 343.
Tests, Chitty on, 146, 147.
combination of, 133.
English, 141.
erroneous, 121.
Lord Denman on right and wrong, 147.
parliamentary inquiry on, 141.
Roscoe on, 146.
Russell on, 146.
Texas statute, intoxication under, 715.
Theft. See KLEPTOMANIA; LARCENY.
Thompson-Dickson on epilepsy, 1040.
Thore on post-febrile insanity, 967.
Threats made by alcoholic as evidence, 789.
Thrombosis of brain, 1080, 1085.
Thunder and lightning, fear of, 845.
struck melancholia, 966.
Thurlow, Lord, on lucid intervals, 67.
Thurnam on senile insanity, 928.
Thyroid glands in treatment, 1189.
Tic convulsif, 847, 853.
Time of application of tests, 162.
to which opinion evidence relates, 588.
Timorous, obsessed, 846.
Tincture habit, 804.
Tindal, C. J., opinion in McNaghten Case, 151.
Tinnitus aurium, 53, 1162.
Tobacco aggravates epilepsy, 1056, 1114.
Toleration of alcohol, 618, 634.
Tongue, furred, 56.
Tonic treatment, 1188
Tonsilitis, delirium after, 967.
Torts, definition of, 206.
Touch sense, 59.
Toxæmias, 1142.
auto, 1145.
Toxic insanities from opium, 802.
Tracy, J., on infant and wild beast test, 139.
Training schools for attendants, 1210.
Tramps, alcoholism among, 639.
Tramps—*continued*.
insane, 33, 639.
Trance acts in alcoholism, 43.
alcoholic, 643.
among dipsomaniacs, 647.
Transformed heredity, 1121.
Transitory frenzy, 972, 976.
during delivery, 981, 982.
homicides, 94, 95.
infanticide, 974, 976.
Trauma causing degeneracy, 842.
causing mania, 959.
in general, causing insanity, 814.
Traumatic and alcoholic insanity, 658.
dementia, 819, 830, 831, 1085.
hallucinations, 55.
idiocy, 819, 875.
imbecility, 820, 838.
insanity, 65, 823.
apparently rational, 665.
complicated with alcoholism, 652.
homicidal, 95.
paranoia, 822, 823, 831, 832.
with alcoholism, 833, 834.
paretic dementia, 821, 831, 1102.
predisposition, 833.
Traumatism, 809.
Travel as treatment, 1168.
Treason, 87.
Treatment, 1166.
of acute stage of insanity, 1166.
of cocaine habit, 799.
of idiocy, surgical, 874.
of inebriates, 678.
of menses in insanity, 60, 65, 942, 955, 1032, 1059, 1110, 1111, 1132, 1189.
of opium insanity, 803.
of paretic dement, wrong, 1101.
Tremors, 56.
Trephining precautions, 1141.
Trespass, intoxication in action for, 784.
Trial, capacity for, 196.
effect of insanity at and after, 192.
English rule against, 91.
epileptic fit after, 1067.
examination of prisoner during, 523.
insanity at and after, 192.

Trial—*continued.*
of criminal case, postponement of, 192.
of insane for crime is invalid, 192.
reading books to jury, 1278.
second, 193.
separate, criminal and insanity, 197.
suspension, when, 195.
when improper, 196.
Trional, 1186.
Trophic disturbances in paretic dementia, 1038.
Trousseau on epileptic insanity, 1047.
Trustee, drunkenness of, 756.
Trustees of asylums, 635, 638, 1225, 1230.
Tubercular meningitis, 1071.
Tuberculosis, 1071. See also PHTHISIS.
after head injury, 811.
as degeneracy, 842.
in heredity, 844, 858.
Tuberculosis—*continued.*
of brain and meninges, 1071.
Tuke on insanity, 803, 818, 1049, 1055, 1249, 1254.
Tumors of brain, 1080.
and testamentary capacity, 342.
dementia from, 1086.
effect of, 1076.
Twins, insanity of, 869.
Twitchell on delirium tremens, 643.
Tyndall's intellect, 844.
Typhoid fever causing alcoholism, 636, 648.
causing cerebral neurasthenia, 844.
delirium after, 967.
paranoia after, 891.
thefts after, 850.
Typhoid stage of delirium tremens, 631, 643.
Typhomania, 1088.

U

Unconscious acts after head injury, 953.
in epilepsy, 1041.
crimes, 41.
Unconsciousness after head injury, 809.
cause of, 1162.
in alcoholic trance, 643.
presumption after, 485.
Uncontrollable drunkenness, 677.
homicidal impulses, 1065.
impulse after head injury, 838.
as a defense, 172.
not a defense, 171.
impulses, 24, 97, 99, 147, 170. See also IRRESISTIBLE IMPULSES.
thirst of drunkard, 674.
Understanding and wills, test, 286.
Undue advantage taken of alcoholic, 723, 739.
Undue influence, 210, 235, 236, 331, 332.
among hysterical, 1027.
and alcoholism, 723, 724, 727, 739.
and gifts, 378.
and incapacity, 362.
and morphine habit, 806.
case of, 930.
Undue influence—*continued.*
evidence of, 520, 521.
in alcoholic insanity, 658.
in climacteric, 236, 936.
in evidence, 524.
in insanity and alcoholism, 727.
in melancholia, 236.
in paretic dementia, 1095, 1096.
proof of, 362.
wills, fraud and, 307.
Unequal distributions in wills, evidence, 330.
Unexecuted and nuncupative wills, 369.
Ungovernable passion no excuse, 127.
Unguentum hydrargyri, 1189.
Uniform for patients, 1196.
Unkindness, influence of, 36.
Unnatural disposition of property, evidence, 227.
Unpardonable sin delusion, 50, 936.
Unreasonable prejudices and wills, evidence, 233.
wrath no excuse, 127.
Unrecognized epilepsy, 1050.
insanity, 211.
Unsound, alcoholic not necessarily, 765.

Unsound—*continued.*
mind and mental disease, 208.
as an omnibus, 12.
definition of, 9, 204, 383.
in delirium, 6.
of vendor overreached by vendee, 727.
Unsoundness, adjudications of, 272.
of mind, drunkenness not, 684, 720, 764, 765.
Unsoundness—*continued.*
separate from alcoholism, 764.
Unsystematized delusions, 50.
Unworthiness, delusions of, 50.
Uric acid theory, 1180.
Urine, 58, 1147, 1180.
glucose in, 1146.
Uterine disorders, 59, 1132.
Utility guides recollection, 47.

V

Vacation of office, 206.
Vagabundenwahnsinn, 33, 890.
Valerian tincture habit, 804.
Van der Kolk on insanity, 28, 1073.
Vegetarian paranoiacs, 870.
Vendor, rights of insane, 727.
Vengeance of insane, 36. See also REVENGE.
savage, 122.
Verdict for damages, alcoholism considered in, 784.
Verdict, insanity after, 93, 199.
Verdicts, compromise, 100, 120.
Verity's case of head-injury insanity, 839.
Verrücktheit, 860.
Vertigo from darnel seeds, 798.
in brain disease, 1081.
of brain syphilis, 1091.
Vesania anomala, 972.
Vesanias, 944.
Vices causing insanity, no excuse, 125.
Vine's Case, 870, 900.
Violence, epileptic, 1042, 1046, 1050, 1052, 1060.
induced by liquor, damages in, 676.
in prognosis, 954.
Violent patients, control of, 1193, 1210.
Virenque on alcoholism, 624.
Virus, fear of, 845.
Vision-seeing hysterical, 1027.
Visitors to asylums, 37, 1200.
Visual memory loss, 1077.
Voices, hallucinations of, 54.
Voisin on insanity, 27, 817, 1048, 1087.
Volition in drinking, 670. See also WILL POWER.
in homicidal impulse, 98.
of insane in drinking, 671.
Voluntary admission of drunkard to retreat, 677.
commitments, 1199.
drunkenness, 661, 679.
affecting contracts, 721.
no excuse for crime, 665, 685.
proof of, 782.
when an excuse, 686.
intoxication in civil case, limitation, 400.
is negligence, 770.
Vomiting after head injury, 809.
in brain disease, 1081.
Von Humboldt's intellect, 844.
Von Schwartzer on transitory frenzy, 973.
Voting, imbeciles, 206.
while drunk, illegal, 693.

W

Wages, forfeiture of, by alcoholic, 729.
Wahnsinn, 860.
Walker on moral insanity, 205.
Walk of insane, 56.
Wandering about, 40.
Wardens of asylums, 635, 638, 1206, 1223, 1227, 1229.
Water cure, 1190.

Waters, fear of, 845.
treatment with spring, 1184.
Waxing floors of asylums, 1205.
Weak intellect and gifts, 740.
and wills, 738.
deed of person of, 732.
memory, 45.
Weak-minded, drunkenness of, 691.
Weakness, age, disease, proof of, 270.
and wills, 275.
guardianship in, 421.
of mind, definition of, 9.
and intoxication as excuse, 691.
no excuse, 126.
testator as evidence, 353.
Wealth, delusions of great, 1096.
Wealthy persons, treatment of, 1126, 1168.
Weather, influence of, 35.
Weight increase, significance of, 1126.
of character in evidence, 672.
of drunkard's confession, 673.
of drunkard's testimony, 797.
of entries of testator, 343.
of evidence of drunkenness as defense, 702.
of expert opinion, 428, 590.
of negative and affirmative evidence, 343.
of nonexpert opinion, 596.
of testimony of subscribing witnesses, 320.
Westcott on suicide, 852.
Westphal on the brain, 1139.
Wharton and Stille on jurisprudence, 17, 89, 851, 1055.
What insanity affects criminal responsibility, 125.
What intoxication affects generally, 719.
When intoxication may be shown generally, 687.
Whistling mania, 87.
Whitechapel murders, the, 96, 100.
White, Prof., on reformers, 1255.
Who may give opinions as witnesses, 567.
Wiedmann on gall stones, 1132.
Wife-beating by alcoholic, damages for, 676.
Wife—*continued.*
murder by alcoholic insane, 650.
by alcoholics, 95, 673.
Wilbur school for feeble-minded, 878.
Wild beast and infant test, Tracy, J., on, 139.
test of insanity, 13, 128.
Wilder, Dr., murder of, 650.
Wilful drunkenness, insane tendencies, 708.
Will power, 98.
against drinking, 670.
loss in epilepsy, 1052.
paralysis, 844, 855.
Wills, 224, 273, 448, 676, 733. See also TESTAMENTARY CAPACITY; TESTAMENTARY INCAPACITY.
abusiveness of testator in, 352
acts, conduct and, 343, 347.
age, alcoholism, and, 738, 739, 777.
aged maker of, 338, 342, 349, 907.
age, weakness, disease and, 275.
alcoholic aphasic, 735.
burden of proof in, 737.
denying, 789.
executor or administrator, 756.
insane, 778.
paralytic, 735.
when valid, 734.
with Bright's disease, 735.
alcoholism affecting, 338, 733, 734, 738, 789.
and age affecting, 738, 739, 777.
and fits of derangement affecting, 778.
aphasia and, 232, 735.
apoplexy and, 342.
asylum made, 440.
atheism and, 345.
attest of drunken physician to, 795.
avoidance of, 235, 475.
belief in witchcraft and, 360.
beliefs, speculative, and, 303.
strange, and, 233, 360.
brain disease and, 342, 857, 358, 1079.
Bright's disease with alcoholism, and, 735.
burden of proof in, 459.
alcoholic, 737.

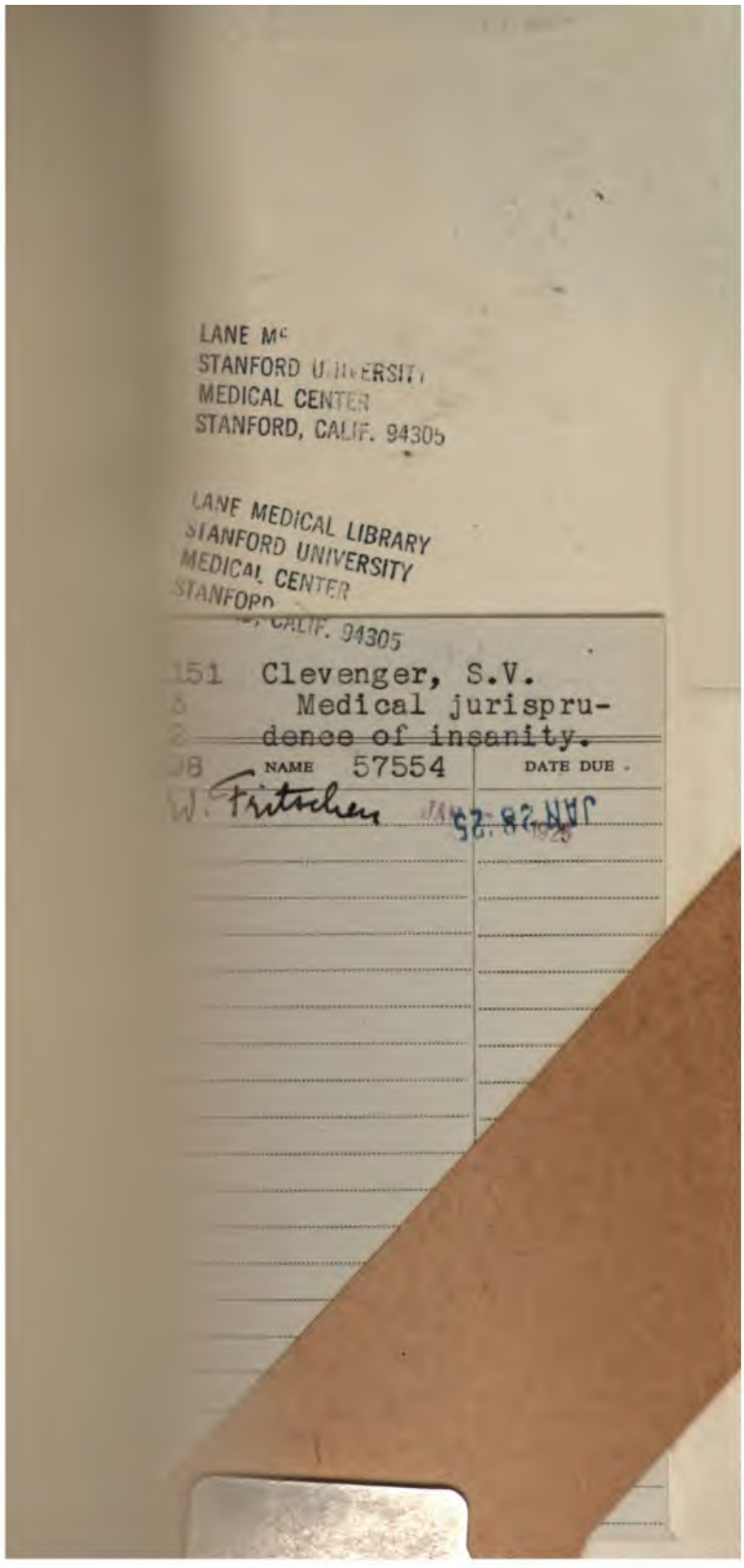
Wills—*continued.*
business ability and, 284, 341.
capacity as compared with act and, 279.
capacity to destroy, 373.
capacity to make, 224, 279, 282, 362, 364, 433, 516.
cerebral neurasthenia and, 234.
change of character or disposition and, 347.
circular insanity and, 1002.
cocaine using and, 807.
codicil of epileptic to, 1067.
of paralytic to, 1086.
coma intervals and, 953.
conformity to previous intention in making, 336, 952.
consonant with affections, 952.
consumption and, 354, 1071.
contractual capacity and, 283.
deathbed, 487, 588.
delirium and, 230, 948, 949, 950, 951.
delirium tremens and, 230, 487, 736, 737, 738, 948, 950.
suicide and, 738.
delusions affecting, 233, 282, 296, 348, 351, 358, 360, 440.
and strange beliefs affecting, 233.
as to persons affected, 301.
of insane defined, and, 295.
of marital infidelity, 360.
of poisoning, 360.
test and, 282.
dishonesty of testator and, 348.
disinheriting relatives, 520.
disparity of marriage age and, 345.
drugs, stupor from, affecting, 487.
eccentricity and, 278, 344.
epileptic, 230, 350, 355, 1052, 1053, 1067, 1068.
equality and justice in, 330.
eroticism and, 349, 352.
evidence of capacity to make, 516.
of drunkenness in, 575.
of former deeds and, 496.
of fraud in, 236.
of hostility in, 520.
of lost or destroyed, 578.
of relationship in, 520.
Wills, evidence—*continued.*
testimony of attesting witnesses in, 320.
Fillmore Case, 1086.
filthy habits and, 344, 345, 347, 348, 360.
forgetfulness and, 277, 351, 353.
former, and deeds in evidence, 496.
fraud and undue influence in, 307.
fraud in, 236, 307, 362.
gifts of nature of, 376.
guardianship and, 437, 767.
habit of making, 344.
head injury and, 953.
imbecility and, 229.
impeachment of witnesses in contest, 565.
incoherent conversation and, 351.
inconsistent, 952.
inquisition affecting, 440.
insane delusion defined and, 295.
marriage plans and, 362.
insane may make valid, 952.
insanity affecting, 273, 293, 358, 952.
alcoholic, and, 778.
hereditary, and, 358.
inferred from nature of, 440.
subsequent and previous, 316.
intent, capacity, knowledge, and, 364, 365.
intermittent insanity and, 230.
intervals of coma in, 953.
intoxicants, narcotics, and, 354.
irascible testator and, 338.
issue, submission in, 312.
jealousy as evidence in, 361.
justice and equality as evidence, 330.
knowledge, capacity, and intent in, 364.
letters, illegible, and, 346.
liquor effects and, 349, 354, 675.
lucid intervals and, 67, 230, 370, 482, 483, 489.
made by maniac, 1086.
made under guardianship, 768.
making habit, 344.
marital infidelity, delusion, and, 360.
marriage plan of insane and, 362.
memory imperfect and, 277, 351, 353.

Wills—*continued.*
memory of testator in, 228, 352.
miserliness and, 345, 348, 360.
moral insanity and, 306.
morphine using and, 799, 805, 806.
Morrison Case, 931.
multiple sclerosis and, 232.
narcotics, intoxicants and, 354, 356, 526.
nature of act itself in, 952.
nervous attacks and, 485.
nuncupative and unexecuted, 369.
old age and, 342, 349, 907.
old age and attendant defects, 349.
old, intemperate, and irascible testator, 338.
opium and morphine user and, 799, 805, 806.
opium taken medicinally, 356.
pain and, 354.
palsy and, 232.
paralysis affecting, 231, 342, 355, 357, 526, 785, 1086.
agitans and, 232.
partial, and, 357.
with alcoholism and, 735.
paranoia (monomania) and, 342.
paretic dementia (general paresis) and, 234, 356, 358.
partial insanity affecting, 292, 293, 358.
perverted affections and, 233.
physical condition of testator, and, 353, 583.
disability of testator, and, 231.
prejudices affecting, 233, 359.
preparation of, 324.
presumption in, 481.
previous and subsequent insanity and, 316.
profanity and filthy habits, effect on, 344, 345, 347.
of testator, and, 348, 352.
proof as to partial insanity and delusion in, 358.
to establish, 315.
to set aside, 475.
purchases and, 351.
ratification of, 240, 340.
Wills—*continued.*
rationality of, 326.
read to testator, 777.
recognition of friends, 352.
relationship in, 520.
revocation of, 373.
right to begin and close, 459, 461, 481.
speculative beliefs and, 303.
speech impairment and, 231.
stimulants and, 356, 357.
strange beliefs and, 360.
submission of issue of testamentary capacity, 312.
subsequent and previous insanity affecting, 316.
subsequent recognition of, 240, 340.
suicide and, 346.
and delirium tremens affecting, 738.
testimony of attesting witnesses, 320.
tests of ability to make, 282, 284, 286, 287, 291, 341.
time limit as to evidence of incapacity, 494.
time of application of tests in, 291.
understanding of, by testator, 286, 777.
undue influence, 362. See also UNDUE INFLUENCE.
and fraud, 307.
unexecuted and nuncupative, 369.
weak intellect and drink affecting, 738.
what insanity affects, 273.
what partial insanity affects, 293.
while under guardian, 767.
witnesses attesting, 600.
impeached in, 565.
word-blind testator of, 232.
Wilmarth on insanity, 820.
Wilson homicide case, 669.
Winslow on insanity, 96, 816, 818, 1049, 1050, 1084.
Witchcraft hallucinations, 54.
testator's belief in, 360.
Witness, absence of, as ground for continuance, 558.
epilepsy of, 610.

Witness—*continued.*
expulsion from court of drunken, 796.
knowledge to warrant opinion of, 578.
medical, 536. See also EXPERTS; MEDICAL EVIDENCE; OPINIONS.
memory of, 613.
opium and alcohol used by, 624.
user as, 807.
paralyzed, 614.
the acquaintance necessary to give opinion as, 568.
under guardian, 611.
when objection to drunken, 797.
who has been sunstruck, 613.
wife of testator as competency, 571.
writing of insane, 615.
Witnesses, and jurors, 607.
attesting, 600.
epileptic will, 1068.
categorical answers of, 110.
children as, 48.
competency of, 607.
examination of medical, 100.
intoxication as affecting, 795.
in will contests, impeachment of, 565.
Witnesses—*continued.*
lawyers as, 47.
opinions of ignorant, 342.
who may give opinions as, 567.
wills and attesting, 320, 600.
Witthaus and Becker on delusions of rape, 673.
Worcester on insanity, 816, 1050, 1051.
Word blindness, 44, 232, 1077.
Word blind, wills of, 232.
deafness, 232, 1077.
Words, loss of memory for, 1077.
Work of insane, 31, 1192.
Worms causing epilepsy, 1131.
insanity, 1131.
Worry causing alcoholism, 1107.
insanity, 1087, 1107, 1111.
Wrath no excuse, unreasonable, 127.
Writing ability, loss of, 1077, 1078.
Writing in epilepsy, 1052.
in old age, 927.
loss of memory for, 1077, 1078.
Writing of insane, 64. See HAND WRITING; LETTERS.
Writing of insane witness, 615.
Wrongs of insane, 866, 930.
Wynne on lucid intervals, 67.

Z

Zinc plaster, 1189.
Zwangsvorstellungen, 845.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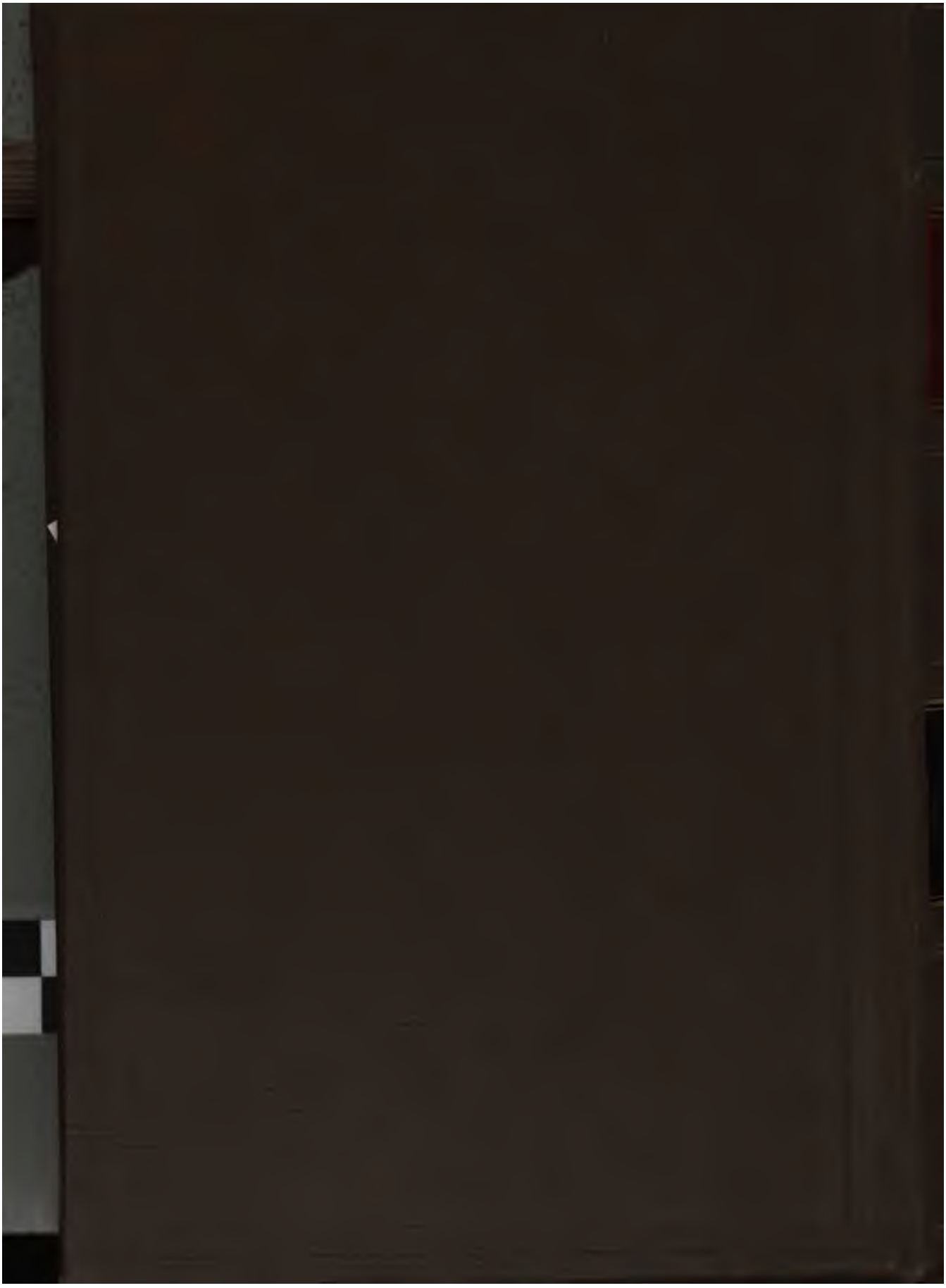
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